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7014	Mr. Gerald Ruopp Street & Apt. No. or PO Box No. City, State, ZIP- PS Form 3800. Mr. Gerald Ruopp Central Wire Industries, Ltd 6509 Olson Road Union, Illinois 60180		

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Central Wire Industries, Ltd 6509 Olson Road Union, Illinois 60180	3. Service Type Certified Mail
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2. Article Number 7014 287	0 0001 9579 4224

A reply is required in 45-days. Should you have any questions, regarding this letter, need any additional information, or wish to discuss this matter further, please contact me at (312) 353-1243 or contact me by email to nordine.john@epa.gov.

Sincerely,

John Nordine, CPG, LPG

Project Manager

Corrective Action Section 2

Cc: Karen Peaceman, U.S. EPA

U.S. Postal Service™ CERTIFIED MAIL® RECEIPT 9579 Joseph | S Postage Certified Fee 1000 Return Receipt Fee (Endorsement Required) Restricted Delivery Fee (Endorsement Required) 2870 Total Postage & -Mr. Gerald Ruopp Techalloy Company, Inc. Street & Apt. No., or PO Box No. City, State, ZIP+4 6509 Olson Road Union, Illinois 60180

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Mr. Gerald Ruopp Techalloy Company, Inc. 6509 Olson Road Union, Illinois 60180	3. Service Type Certifled Mail
	4. Restricted Delivery? (Extra Fee)
2. Article Number 7014 28	70 0001 9579 3449



REGION 5 77 WEST JACKSON BOULEVARD CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

LU-9J

Sent by Certified Mail # 7014 2870 0001 9579 3449 and Electronic copy

October15, 2015

Mr. Gerald Ruopp Techalloy Company, Inc. 6509 Olson Road Union, Illinois 60180

United State Environmental Protection Agency's Comments September 2015 Monthly Progress Report EPA ID # ILD 005 178 975, Administrative Order on Consent (AOC), Docket No. R8H-5-99-008

Dear Mr. Ruopp,

This letter provides the United States Environmental Protection Agency (EPA) comments on the September Monthly Progress Report for the Techalloy facility in Union, Illinois prepared by Autumwood Consultants, LLC (Autumwood), dated October 8, 2015. The report was received by the EPA on October 15, 2015. EPA has reviewed the report and has the following comments:

General Comment on submission--the laboratory results for the effluent sampling need to be provided.

Monthly Progress Report--minor comment, but table numbers should be in the order referenced in the text (1, 2, 3...). Table references in the text were 1, 3, 4, and 2.

Minor comment, but the naming of the extraction wells relative to Figure 1 is a bit confusing in the text. Text should clearly note the groundwater extraction wells are wells EW-1 and EW-2 and as shown in Figure 1.

A paragraph or two that actually discusses the volatile organic compound concentrations at wells EW-1 and EW-2 is required.

The text indicates that the "0" values for 1,1-dichloroethene and cis-1,2-dichloroethylene prior to March 2013 at well EW-1 should be changed to "-", or something else that indicates "not

- 2. Provide a discussion of duplicate samples from the GeoProbe wells. A duplicate sample of the Geoprobe groundwater samples shall be collected daily.
- 2. Contamination in the northeastern part of the sampling area (GP-8, -19, -20) exceeded, or was close to, the maximum contaminant levels (MCL) for (DCE) during the last sampling event. It would be prudent to add a sampling location to the northeast along the N-S trending road east of GP-19 at a point due east of GP-24.
- 3. It would be prudent to sample GP-26, GP-24, and the proposed new well east of GP-24 first, with a quick turnaround, to get an early indication of whether or not the proposed sampling will define the plume or if we will need to sample downgradient. This approach should save having to go out multiple times to define the plume--like during the previous sampling events.
- 4. If Autumwood does not want to do a quick turnaround and get the initial data quickly and there is an MCL exceedence at one of the downgradient locations. How soon does Autumwood propose to go out and do additional monitoring?
- 5. On Figure 2 add the locations of the South Branch Nursery irrigation wells. Make the color of the new sample locations different from the previous sample locations. Add a different color for those locations know to have detections of the chemical of concern.
- 6. In the final report, prepare a contingence plan and a cost estimate for the plan to keep the plume from migration any further. The plume is within 1,100 feet of the nearest residential well and 890 feet from the nearest irrigation well. The EPA has received several request from the McHenry County Department of Health to comment on proposed residential and irrigation wells in and around the contamination plume from the facility.

A reply is required in 30-days. Should you have any questions, regarding this letter, need any additional information, or wish to discuss this matter further, please contact me at (312) 353-1243 or contact me by email to nordine.john@epa.gov.

Sincerely,

John Nordine, CPG, LPG

Project Manager

Corrective Action Section 2

Cc: Karen Peaceman, U.S. EPA

To:

File

From: John Nordine, U.S. EPA

Date: November 1, 2016, 1000 hours

Subject: Techalloy Inc. (Central Wire Industries), Union Illinois EPA ID# ILD 005 178 975, Migration of

Contaminate Plume Off-site.

On November 11, 2016, at 10: am, John Nordine of the U.S. EPA and Bob Kay of the USGS had a phone conversation with Jack Thorsen of Autumwood Consultants and 'Gerry' Roupp and Robert Johnson representatives of the Techalloy Facility in Union, Illinois. The meeting discuss the threat of the contaminated groundwater plume emanating from the Techalloy Facility to the irrigation well at the South Branch Nursery.

U.S. EPA noted that a volatile organic compounds (VOC)'s plume had migrated to within a couple hundred feet of the irrigation well at the South Branch Nursery and that Techalloy needed to take steps to address the public health situation that contamination of this well would cause.

Jack Thorsen noted that the VOC levels in the aguifer were low and that water and air sampling could be done to assess the threat posed by spraying of water from this well on the nursery plants to the workers at the nursery.

Techalloy also noted that the nursery well could be replaced by a well drilled into the underlying St. Peter aguifer or that water could be treated at the wellhead.

John noted that EPA had a preference to remediate contamination rather than avoid it and that the plume also posed a threat to a number of residential supply wells along State Route 176 north of the nursery.

Techalloy suggested that any affected residential wells could be replaced with St. Peter wells too, and that this process was consistent with steps taken to provide alternate water supply for other wells in the Union area. They also noted that plume remediation would be expensive and might not work.

U.S. EPA suggested performing a pilot test to determine if Nano-carbon injection would be effective for plume remediation option as proposed by facility.

Techalloy stated they would provide the final report on the 2016 RCRA CMI Field Investigation Work by December 15, 2016

Techalloy stated they would consider a pilot test. Techalloy to provide to U.S. EPA with a proposal report for remediation of the plume by January 31, 2017

Techalloy to provide to U.S. EPA figures (3d or fence diagrams) depicting the extent and location of the VOC plume from the facility to the Nursery well to EPA.

Techalloy agrees to provide these figures in a submission by December 15, 2016.

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6509 Olson Road Union, Illinois 60180	3. Service Type Certifled Mail Registered Insured Mail C.O.D. Express Mail C.O.D. 4. Restricted Delivery? (Extra Fee) Yes
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 5 77 WEST JACKSON BOULEVARD

CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF

LU-9J

Sent by Certified Mail # 7014 2870 0001 9579 4224 and Electronic copy

March 24, 2016

Mr. Gerald Ruopp Central Wire Industries, Ltd 6509 Olson Road Union, Illinois 60180

United State Environmental Protection Agency's Comments December 2015 Monthly **Progress Report Revision 1** EPA ID # ILD 005 178 975, Administrative Order on Consent, Docket No. R8H-5-99-008

Dear Mr. Ruopp,

This letter provides the United States Environmental Protection Agency (EPA) comments on the December Monthly Progress Report Revision 1 for the Techalloy facility in Union, Illinois prepared by Autumwood Consultants, LLC. The EPA received the revised report on March 11, 2016. EPA has reviewed the report and has the following comments:

General comment: Please conduct an editorial review of every document submit to EPA prior to its submission from this time forward.

- a. There were minor issues raised regarding Figures 5 and 6 in our review of the original monthly progress report (MPR). The end date is incorrect for titles on Figures 5 and 6. These issues are unresolved.
- b. In our review, we asked for discussion of why stabilization criteria were not provided for a number of wells. Provide that discussion.
- c. This version of the MPR describes Table 4 as showing concentrations of chemicals decreasing through time. This is true. The text states, "Central Wire assembled Table 4 to show that the concentrations of the chemicals of concern have been reduced over time in the groundwater that is captured by the extraction wells." This is also misleading; it suggests to the reader that the migration of the chemicals of concern has stopped at the

extraction wells. It does not explain why the chemicals of concern have migrated past the extraction wells on to the sod farm's property. Add an explanation to the text.

A reply is required in 30-days. Should you have any questions, regarding this letter, need any additional information, or wish to discuss this matter further, please contact me at (312) 353-1243 or contact me by email to nordine.john@epa.gov.

Sincerely,

John Nordine, CPG, LPG

Project Manager

Corrective Action Section 2

Cc: Karen Peaceman, U.S. EPA

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REPLY TO THE ATTENTION OF:

LU-9J

Sent by Certified Mail # 7014 2870 0001 9579 4156 and Electronic copy

January 28, 2016

Mr. Gerald Ruopp Techalloy Company, Inc. 6509 Olson Road Union, Illinois 60180

United State Environmental Protection Agency's Comments on the 2016 RCRA CMI Field Investigation Work Plan EPA ID # ILD 005 178 975, Administrative Order on Consent (AOC), Docket No. R8H-5-99-008

Dear Mr. Ruopp,

This letter provides the United States Environmental Protection Agency (EPA) comments on the 2016 RCRA Corrective Measures Implementation (CMI) Field Investigation Work Plan for the Techalloy facility in Union, Illinois prepared by Autumwood Consultants, LLC (Autumwood), dated January 2016. The EPA received the report on January 11, 2016. EPA has reviewed the report and has the following comments:

General comments; Provide the meanings of all acronyms used in the text. Add the EPA ID Number to the cover page.

- 1. Provide a dissuasion on the migration of the plume from 2011 to 2015. How does the data from the plume studies compare to the groundwater transportation models of 2007 and 2008?
- 2. The text is somewhat ambiguous, regarding decontamination and collection of blanks for the "Geoprobe tooling", especially the mechanical bladder pump. Explicitly describe what constitutes the "GeoProbe tooling" and its decontamination and the collection of blank samples associated with the various pieces of equipment. Explicitly discussed decontamination of the Geoprobe drill rod, screen, and sampling pump as well as what tooling the "rinse sample" will be "passed over". Explicitly present a discussion of the collection of blank samples associated with the screen in the text. Present a discussion of the collection of equipment blanks.

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Mr. Gerald Ruopp Techalloy Company, Inc. 6509 Olson Road Union, Illinois 60180	3. Service Type Certified Mail
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REGION 5 77 WEST JACKSON BOULEVARD CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

LU-9J

Sent by Certified Mail # 7014 2870 0001 9579 4149 and Electronic copy

January 26, 2016

Mr. Gerald Ruopp Techalloy Company, Inc. 6509 Olson Road Union, Illinois 60180

United State Environmental Protection Agency's Comments December 2015 Monthly Progress Report EPA ID # ILD 005 178 975, Administrative Order on Consent (AOC), Docket No. R8H-5-99-008

Dear Mr. Ruopp,

This letter provides the United States Environmental Protection Agency (EPA) comments on the December Monthly Progress Report for the Techalloy facility in Union, Illinois prepared by Autumwood Consultants, LLC (Autumwood), dated January 7, 2016. The EPA received the report on January 14, 2016. EPA has reviewed the report and has the following comments:

- 1. Progress Made: The sample log in checklist for the submission that included the P&T System effluent notes some of the sample bottles were broken and others had a large bubble. Autumwood should provide information on which samples contained broken bottles and bubbles, and if sufficient volume in the other bottles for that sample to allow an uncompromised analysis—the checklist suggests there was. Provide a full description of the issues with the integrity of the bottles, so that we can have explicit assurances that the reported values in this document area accurate, and not compromised.
- 2. Provide an explanation for the two data loggers sent back to the factory. Were there two transducers put down one hole to monitor water levels? Were different transducer used for different dates? Explain where the locations of the data loggers and what each of them monitored.
- 3. Explain "... Central Wire will check them against the first two months of operation in the spring and discuss it in the following Monthly Progress Report"? This text seems to indicate that

after collecting two months of water-level data, and then checking the data for accuracy, and then presented to EPA their findings. This plan seems to mean that something like three months of data collection will take place before any errors will be evaluated, let alone corrected. The accuracy of the data should be checked when the logger is put in place—move the transducer up and down by a calibrated distance and verify the transducer data agree with the known movement. The check accuracy of the data by comparing transducer values and tape-down measurements of water level at the end of the first month, and every month thereafter. If the data do not agree, steps take to improve the transducer readings. Provide the EPA written steps to improve the transducer readings.

- 4. Excepting the October 2014 result, MW-4 tested below the maximum contaminant levels (MCL) for trichloroethene (TCE) since June 2012, not December 2012.
- 5. Picky point, but when the word "since" is used to describe what has transpired after something last happened, the date of last occurrence should be used. Tetrachloroethene (PCE) concentrations in well MW-5 have been below 100 parts per billion (ppb) since December 2012 (the date of last occurrence of 100 ppb-plus PCE) not since June 2013 (the date of the first occurrence of PCE <100 ppb). Autumwood needs to make the appropriate changes at several places in this report. Alternatively, Autumwood could say something like PCE concentrations were below 1,000 ppb beginning in June 2013.
- 6. MW-5D, again, check the dates. Will not comment after here.
- 7. There is no Figure 10 plotting data from well DGW-1S. Autumwood should correct the text or add the figure.
- 8. For DGW-1D, note that "between" also incorrectly used to describe the dates of vinyl chloride exceedences of the MCL. Suggest something like "...from June 2013 through December 2015".
- 9. Where is the data for the DGW-2 wells? Even if there are no exceedences, provide the data, at least of the major volatile organic compounds in this area. These wells are close to the water-supply wells and it is important to understand what is going on at this location.
- 10. Monitoring wells, charts and graphs. The end date is incorrect for titles on Figures 5 and 6.
- 11. Table 2. Technically, it appears stabilization criteria were not met before sampling in a few wells, ex. pH was not +/- 0.1 SU for three consecutive readings at MW-4 (would be OK if rounding off the readings, but I don't recall rounding being part of the procedure), MW-8, 18408 Rt. 176. Dissolved Oxygen (DO) stabilization of +/- 10 percent was not met at a few locations (MW-5D, maybe MW-9, DGW-2I, etc.). For the DO readings, provide the rational or reasoning for sampling before the DO stabilized.

A reply is required in 30-days. Should you have any questions, regarding this letter, need any additional information, or wish to discuss this matter further, please contact me at (312) 353-1243 or contact me by email to nordine.john@epa.gov.

Sincerely,

John Nordine, CPG, LPG

Project Manager

Corrective Action Section 2

Cc: Karen Peaceman, U.S. EPA

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REGION 5 77 WEST JACKSON BOULEVARD CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

LU-9J

Sent by Certified Mail # 7014 2870 0001 9579 4071 and Electronic copy

December 17, 2015

Mr. Gerald Ruopp Techalloy Company, Inc. 6509 Olson Road Union, Illinois 60180

United State Environmental Protection Agency's Comments November 2015 Monthly Progress Report EPA ID # ILD 005 178 975, Administrative Order on Consent (AOC), Docket No. R8H-5-99-008

Dear Mr. Ruopp,

This letter provides the United States Environmental Protection Agency (EPA) comments on the September Monthly Progress Report for the Techalloy facility in Union, Illinois prepared by Autumwood Consultants, LLC (Autumwood), dated December 7, 2015. The EPA received the report on December 15, 2015. EPA has reviewed the report and has the following comments:

Table 1 and supporting discussion. Fairly minor, but the period covered by this table (and presumably the associated discussion) is October 26-November 16, not November 2-November 16, 2015. Autumwood should correct the period where appropriate, including the table caption. Additionally, it' is EPAs understanding the Kunde Road pump was pumped for 1 hour during the October 26-November 2, 2015 time frame. Correct the table and discussion.

Table 2 and associated discussion. The measured difference in water levels from November 2 through December 3, 2015 was (6.78-4.93) 1.85 ft, as Autumwood notes. However, the difference in the transducer readings was something like (23.05-25.30) 2.25 ft. These readings are off by about 0.40 ft. Autumwood needs to explicitly compare the transducer water-level measurements with the manual water-level measurements, note any discrepancy, and commit to either eliminating the discrepancy in a timely manner (this is at least the two month where the manual and transducer readings does not match). Have the transducer(s) recalibrated over the winter. Ignoring the error in the data is not consistent with good science.

analyzed". The graphs for wells EW-1 and EW-2 and the associated data table for well EW-1 indicate (apparently inaccurately) the analyses were done, and that the results came back as non-detects. This presentation of the data indicates trends in the concentration of these analytes that are not present or at least not to the degree indicated by the tables and graphs. Revise Table 4 and the associated plots to accurately depict what data is available, when, for what analyses.

A well (or anything else) should be described using the same name throughout the report to avoid confusion. Well EW-1 is referred to as "Well 1" in Table 4 and "P&T Influent Well 1" in the data plot and "Extraction well 1" in the text. This issue also applies for well EW-2. Pick a name and use is consistently.

Table 2, the effluent limitation for tetrachloroethene, trichloroethene, and tetrachloroethene is 20 micrograms per liter, not the described 20 milligrams per liter. The table needs to be corrected. This error appears to be present in all of the previous submissions. For the umpteenth time Autumwood needs to check the accuracy of their submissions.

Table 3, water-level data—the text describes water levels as being 6.35 ft below top of casing on August 31, 2015 and 6.74 ft on October 5, 2015. This means a verified change in water level of 0.39 ft during this time span. Table 3 does not provide water levels before September 1, 2015, so the accuracy of the transducer data cannot be verified from this submission. Future submissions should include transducer data covering both of the tape-down measurement periods so the accuracy of the data can be verified. Future submission also should note the time of the measurement, not just the date. The water-level data from the August 2015 submission and the changes in water level shown by the transducer are reasonable.

A reply is required in 30-days. Should you have any questions, regarding this letter, need any additional information, or wish to discuss this matter further, please contact me at (312) 353-1243 or contact me by email to nordine.john@epa.gov.

Sincerely,

John Nordine, CPG, LPG

Project Manager

Corrective Action Section 2

Cc: Karen Peaceman, U.S. EPA

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Techalloy Company, Inc.	
6509 Olson Road Union, Illinois 60180	3. Service Type Certifled Mail Express Mail
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REPLY TO THE ATTENTION OF:

LU-9J

Sent by Certified Mail # 7014 2870 0001 9579 3395 and Electronic copy

September 18, 2015

Mr. Gerald Ruopp Techalloy Company, Inc. 6509 Olson Road Union, Illinois 60180

United State Environmental Protection Agency's General Site Work Comments EPA ID # ILD 005 178 975, Administrative Order on Consent (AOC), Docket No. R8H-5-99-008

Dear Mr. Ruopp,

The United States Environmental Protection Agency (EPA) has the following general comments on the site work at the Techalloy facility in Union, Illinois.

We asked that water levels be taken in DGW-2I whenever downloads were done. Autumwood provided a measurement for August 31, 2015, which is good. Starting in the September Monthly Progress Report, Autumwood should provide both the starting and ending measurements and provide a comparison of the field measurements and transducer data--both the absolute elevation and the change in elevation between the first and last readings. If these measurements don't agree to say 0.05 ft, we should consider remedial steps. Remedial steps could be clean the transducer and recalibrate it.

EPA looks forward to the discussion of the sampling data from the pump and treat wells that included the historical data and some analysis of trends in data and when pumping in the wells might cease at minimum once per year in the September 2015 Monthly Progress Report.

Should you have any questions, regarding this letter, need any additional information, or wish to discuss this matter further, please contact me at (312) 353-1243 or contact me by email at nordine.john@epa.gov.

Sincerely,

John Nordine, CPG, LPG

Geologist

Corrective Action Section 2

Cc: Karen Peaceman, U.S. EPA

Bob Kay, USGS

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Techalloy Company, Inc. 6509 Olson Road Union, Illinois 60180	
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REPLY TO THE ATTENTION OF:

LU-9J

Sent by Certified Mail # 7014 2870 0001 9579 3388 and Electronic copy

September 3, 2015

Mr. Gerald Ruopp Techalloy Company, Inc. 6509 Olson Road Union, Illinois 60180

United State Environmental Protection Agency's General Site Work Comments EPA ID # ILD 005 178 975, Administrative Order on Consent (AOC), Docket No. R8H-5-99-008

Dear Mr. Ruopp,

The United States Environmental Protection Agency (EPA) has the following general comments on the site work at the Techalloy facility in Union, Illinois.

- EPA has identified issues with the water level data and recommends that a depth to water measurement be taken at the time the water-level data is downloaded. This level should be reported, and the data from the field measurement and the transducer data should be compared both the water-level altitude at the time of the measurement as well as the change in altitude from the previous measurement to help ensure the accuracy of the recorded data.
- Provide a discussion of the sampling data from the pump and treat wells that included the
 historical data and some analysis of trends in data and when pumping in the wells might
 cease at minimum once per year. Please begin the discussion in the September or
 October 2015 Monthly Report.
- Provide the correct dates of the data and in any tables, charts, or maps discussed in any reports.
- If sampling is discussed in any report provide a map with the sample locations.

Should you have any questions, regarding this letter, need any additional information, or wish to discuss this matter further, please contact me at (312) 353-1243 or contact me by email at nordine.john@epa.gov.

Sincerely,

John Nordine, CPG, LPG

Geologist

Corrective Action Section 2

Cc: Karen Peaceman, U.S. EPA

Bob Kay, USGS

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Mr. Gerald Ruopp Techalloy Company, Inc. 6509 Olson Road Union, Illinois 60180	3. Service Type Certifled Mail
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REGION 5 77 WEST JACKSON BOULEVARD CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

LU-9J

August 27, 2015

<u>CERTIFIED MAIL</u> #7014 2870 0001 9579 3333 <u>RETURN RECEIPT REQUESTED</u>

Mr. Gerald Ruopp Techalloy Company, Inc. 6509 Olson Road Union, Illinois 60180

Re:

Estimated Cost of Work 2016 Techalloy Company, Inc., EPA No: ILD 005 178 975 AOC Docket No.: R8H-5-99-008

Dear Mr. Ruopp

The United States Environmental Protection Agency (EPA) has reviewed the Estimated Cost of Work, for Techalloy Company, Inc., from your contractor Autumnwood ESH Consultants letter, dated August 26, 2015, at the Union, Illinois site. The estimate submitted to the EPA in accordance with the Administrative Order on Consent (AOC) for Techalloy facility.

EPA finds the Estimated Cost of Work acceptable for meeting the requirements of the AOC. The stated estimated cost to competition was \$323,750.00. The EPA looks forward to receiving Assurances of Financial Responsibility according to Section 57 Assurances of Financial Responsibility of the AOC. Should you have any questions, regarding this letter, need any additional information, or wish to discuss this matter further, please contact me at (312) 353-1243, or contact me by e-mail at nordine.john@epa.gov.

Sincerely,

John Nordine,

Geologist, CPG, LPG

Land and Chemicals Division

Corrective Action Section 2

cc:

Ms. Karen Peaceman, ORC

See the second	
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY **REGION 5** 77 WEST JACKSON BOULEVARD

CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

LU-9J

Sent by Certified Mail # 7014 2870 0001 9579 3364 and Electronic copy

July 23, 2015

Mr. Gerald Ruopp Techalloy Company, Inc. 6509 Olson Road Union, Illinois 60180

United State Environmental Protection Agency's Comments June 2015 Monthly Progress EPA ID # ILD 005 178 975, Administrative Order on Consent (AOC), Docket No. R8H-5-99-008

Dear Mr. Ruopp,

This letter provides the United States Environmental Protection Agency (EPA) comments on the June 2015 Monthly Progress Report for the Techalloy facility in Union, Illinois prepared by Autumwood Consultants, dated July 2, 2015. The report was received by the EPA on July 16, 2015. EPA has reviewed the report and has the following comments:

Summary of Validated Data and Results:

- 1. Provide the correct year in the title for the "Summary of 2015 Irrigation Pumping Hours per Week at Central Sod Farms" in the parentheses of the data table.
- 2. eDMR Form: the concentration units reported for 1,1,1-Trichloroethane (TCA), Trichloroethene (TCE) and Tetrachloroethene (PCE) are an order of magnitude too large. For example the concentrations of TCA is reported as 0.0066 mg/L (6.6 ug/L) when is should be 0.00066 mg/L (0.66 ug/L).
- 3. Field Parameter Compilation:
 - A. Field parameters typically are measured every 3-5 minutes during low flow sampling in monitoring wells. The sampling plan for this site calls for a measurement of field parameters every 5 minutes. Measurements were taken every 3 minutes. Can Autumwood provide the sampling plan so that we can verify the agreed upon

- measurement interval? EPA would also like to verify the dissolved oxygen stabilization criteria.
- B. There is a lack of proper formatting of this table (inconsistent report of data to the right of the decimal, poor alignment, lack of table headings beyond the first page). There also are a number of typos in the data here (temp. at HBR; DO for DGW-1I). The table should be edited and corrected.
- C. Add to the title the town, and state to the table heading.
- 4 In the text mention Table 3-1 and add site name, town, and state to the table heading. Explain what acronyms mean in the table. Where are and what are Tables 1 and 2?
- In the text mention the figures. Figure 3 for MW-5 check the data both June 2014 entries and where is the data for June 2015? Figure 4, why two tables with the same information? Pick one or the other for the table.

A figure showing the location of the residential wells and monitoring well locations should be provided in this submission and referenced in the text.

A reply is required in 30-days. Should you have any questions, regarding this letter, need any additional information, or wish to discuss this matter further, please contact me at (312) 353-1243 or contact me by email to nordine.john@epa.gov.

Sincerely,

John Nordine, CPG, LPG

Geologist

Corrective Action Section 2

Cc: Karen Peaceman, U.S. EPA

Bob Kay, USGS

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
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REGION 5 77 WEST JACKSON BOULEVARD CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

LU-9J

Sent by Certified Mail # 7009 1680 0000 7663 8319 and Electronic copy

May 28, 2015

Mr. Gerald Ruopp Techalloy Company, Inc. 6509 Olson Road Union, Illinois 60180

United State Environmental Protection Agency's Comments April 2015 Monthly Progress Report
EPA ID # ILD 005 178 975, Administrative Order on Consent (AOC),
Docket No. R8H-5-99-008

Dear Mr. Ruopp,

This letter provides the United States Environmental Protection Agency (EPA) comments on the April Monthly Progress Report for the Techalloy facility in Union, Illinois prepared by Autumwood Consultants, dated May 21, 2015. The report was received by the EPA on May 26, 2015. EPA has reviewed the report and has the following comments:

Progress Made This Report Period: It appears Autumwood has reversed the direction of the change in groundwater levels in parts of their spreadsheet and in their plots of water level through time. From what EPA can tell Autumwood increased the water-level elevation when they should have decreased it, and vice-versa. For example, following a substantial rainfall on April 9 Autumwood plotted groundwater elevation as decreasing by about 1.5 feet (ft). Looking at the absolute pressure data for the period from April 9 at 1906 hours when the transducer reading was 24.5909 pounds per square inch (psi) (5.999 ft) and April 11 at 1106 hours when the transducer reading was 25.2295 psi (7.473 ft). The graph and water water-level elevation values presented in columns E and F of the spreadsheet for these time periods show a decrease in water level from 815.271 ft above mean sea level to 813.797. Pressure transducers read the height of the water column above the sensor, so an increase in psi and water level should correspond to an INCREASE in the altitude of water level in the well.

- 1. Autumwood needs to redo this plot correctly.
- 2. Techalloy is required to check the water-level data Autumwood presented in every one of their previous submissions to determine if it is accurate or not. If not, ALL of this data, including pumping and precipitation data, should be re-presented in a separate document that analyzes the relation between groundwater elevation, offsite pumping, and precipitation events.

Summary of Validated Data and Results:

In the Table for the Pump & treat Discharge Analytical Results, Autumwood reported the data in $\mu g/L$ (micrograms per liter) but has converted the data to mg/L (milligrams per liter). For example, the texts reports 1,1,1-Trichloroethane as 0.0014 $\mu g/L$ and the data package reported 1.4 $\mu g/L$. Also for Tetrachloroethene should be reported as less than 0.17 $\mu g/L$. Please correct the text for all the parameters.

Autumwood reported the sampling results of GP-26S in μ g/L while the data package reports the results in mg/L. For example, the texts reports 1,1-Dichloroethane at 0.00082 J μ g/L and the data package reported 1,1-Dichloroethane at 0.00082 J μ g/L Autumwood should convert the results mg/l to μ g/l if that is the units of measure they want to use. Please correct the text to the correct units of measure and note that J is a qualifier for?

The temperature of the samples submitted as part of the Geoprobe sampling event was somewhat greater (5.7° C) than the 4.0° C goal. Autumwood should note this fact in the text.

A figure showing the location of the irrigation well and appropriate Geoprobe locations should be provided in this submission and referenced in the text.

Consistent detection of low concentrations of toluene may indicate field or laboratory contamination. Autumwood should take steps to eliminate these apparently spurious detections.

A reply is required in 30-days. Should you have any questions, regarding this letter, need any additional information, or wish to discuss this matter further, please contact me at (312) 353-1243 or contact me by email to nordine.john@epa.gov.

Sincerely.

John Nordine, CPG, LPG

Project Manager

Corrective Action Section 2

Cc: Karen Peaceman, U.S. EPA

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REGION 5 77 WEST JACKSON BOULEVARD CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

LU-9J

Sent by Certified Mail # 7009 1680 0000 7663 8296 and Electronic copy

May 7, 2015

Mr. Gerald Ruopp Techalloy Company, Inc. 6509 Olson Road Union, Illinois 60180

United State Environmental Protection Agency's Comments March 2015 Monthly Progress Report
EPA ID # ILD 005 178 975, Administrative Order on Consent (AOC),
Docket No. R8H-5-99-008

Dear Mr. Ruopp,

This letter provides the United States Environmental Protection Agency (EPAs) comments on the March Monthly Progress Report for the Techalloy facility in Union, Illinois prepared by Autumwood Consultants, dated April 6, 2015. EPA has reviewed the report and has the following comments:

- 1. What are wells 1 and 2 in the Test America Analytical Report? The lab report notes they have been sampled, but the progress report is completely silent on this effort. Are these the extraction wells? Show these wells on a map and note their function. Describe when, how, and why the wells were sampled. Discuss the significance of their sample results, which include maximum contaminate levels exceedences. Provide historical context for this data.
- 2. For the water level plot for DGW-2I, the period of data collection began in December 2014, not 2015. Change chart title accordingly.

A reply is required in 30-days. Should you have any questions, regarding this letter, need any additional information, or wish to discuss this matter further, please contact me at (312) 353-1243 or contact me by email to nordine.john@epa.gov.

Sincerely,

John Nordine, CPG, LPG

John Wordine

Project Manager

Corrective Action Section 2

Cc: Karen Peaceman, U.S. EPA

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REPLY TO THE ATTENTION OF:

LU-9J

Sent by Certified Mail # 7009 1680 0000 7663 8258 and Electronic copy

March 17, 2015 Mr. Gerald Ruopp Techalloy Company, Inc. 6509 Olson Road Union, Illinois 60180

Re: Central Wire Union, IL Work Plan to Complete the Definition of the Leading Edge of the Chlorinated Plume Downgradient from Central Wire, EPA ID # ILD 005 178 975, Administrative Order on Consent (AOC), Docket No. R8H-5-99-008

Dear Mr. Ruopp,

This letter provides the United States Environmental Protection Agency (EPA) comments on the Central Wire Union, Illinois Work Plan to Complete the Definition of the Leading Edge of the Chlorinated Plume Downgradient from Central Wire, dated March 6, 2015, prepared by Autumwood ESH Consultants, LLC. EPA's approves the workplan with comments which are:

EPA approves the proposed location of GP-25. A second Geoprobe location (GP-26) is required another 100 ft or so along this line to ensure we're not going to have to go out again and define this plume. This contamination plume is getting pretty close to the Nursery Irrigation Well. EPA requires a sample be collected from the Nursery Irrigation Well as part of this effort.

Please provide a hard copy and electronic copy response to comments in 30-days. Should you have any questions, regarding this letter, need any additional information, or wish to discuss this matter further, please contact me at (312) 353-1243 or contact me by letter or by email at nordine.john@epa.gov.

Sincerely,

John Nordine, CPG, LPG

Project Manager

Corrective Action Section 2

Cc: Karen Peaceman, U.S. EPA

In Mordon

Jack Thorsen, Autumnwood ESH Consultants

Bob Kay, USGS

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 5 77 WEST JACKSON BOULEVARD CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

LU-9J

Sent by Certified Mail # 7001 0320 0006 0192 6975 and Electronic copy

September 23, 2014

Mr. Gerald Ruopp Techalloy Company, Inc. 6509 Olson Road Union, Illinois 60180

United State Environmental Protection Agency's Comments on the 2014 Corrective Measures Implementation Field Investigation Work Plan EPA ID # ILD 005 178 975, Administrative Order on Consent (AOC), Docket No. R8H-5-99-008

Dear Mr. Ruopp,

This letter provides the United States Environmental Protection Agency (EPA) comments on the 2014 Corrective Measures Implementation Field Investigation Work Plan, September 5, 2014, for the Techalloy facility in Union, Illinois prepared by Autumwood ESH Consultants, LLC (Autumnwood). EPA's comments are:

General Comment--this document needs a figure showing proposed Geoprobe locations as well as either a figure or table showing historical detections. Autumwood state EPA would receive the all of the figures at a later date due to their graphics person being out of the office. To date EPA has not received the figures. Sampling Locations: the leading edge of the plume needs to be defined downgradient of GP-8. GP-8 had a maximum contaminant level (MCL) exceedence of TCE during the last sampling event. A Geoprobe location needs to be placed in the direction of plume movement (N-NW) downgradient of GP-8.

The document needs to be revised to specify how it will be determined in a timely fashion (24-hour turnaround) that the formerly "clean" Geoprobe locations (16 through 22) remain "clean". Clean means no MCL exceedences. If plume migration has occurred so that some or all of these locations are no longer clean, that the sampling locations will be moved downgradient to find the end of the plume. Suggest starting sampling at GP-22, GP-19, GP-20, and the new locations downgradient of GP-8. These samples should have 24-hour turnaround on the sampling. If these locations are clean, the rest of the locations can be sampled on a normal schedule. If they

are not, the Work Plan needs to describe where sampling will be done to define the current extent of the plume.

Please provide a hard copy and electronic copy response to comments in 30-days. Should you have any questions, regarding this letter, need any additional information, or wish to discuss this matter further, please contact me at (312) 353-1243 or contact me by letter or by email at nordine.john@epa.gov.

Sincerely,

John Nordine, CPG, LPG

Project Manager

Corrective Action Section 2

Cc: Karen Peaceman, U.S. EPA

Jack Thorsen, Autumnwood ESH Consultants

Bob Kay, USGS

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REPLY TO THE ATTENTION OF:

LU-9J

Sent by Certified Mail # 7009 1680 0000 7663 7992 and Electronic copy

May 30, 2014

Mr. Gerald Ruopp Techalloy Company, Inc. 6509 Olson Road Union, Illinois 60180

United State Environmental Protection Agency's Comments on the 2012 RCRA Corrective Measures Implementation Status Report Revision 1 April 2014, EPA ID # ILD 005 178 975, Administrative Order on Consent (AOC), Docket No. R8H-5-99-008

Dear Mr. Ruopp,

This letter provides the United States Environmental Protection Agency (EPA) comments on the 2012 RCRA Corrective Measures Implementation Status Report, Revision 1, April 2014, for the Techalloy facility in Union, Illinois prepared by Autumwood ESH Consultants, LLC (Autumnwood) dated March 31, 2014. EPA's comments are:

General Comment: Whenever a synonym is used in a figure, provide a key of synonyms used. A figure or chart is a stand-alone document. All figures and charts require a title and legend.

RESPONSE TO COMMENTS DOCUMENT

Comment 1. It appears EPA was miss interpreted with this comment. The original version of the report contained incorrect information on how the residential wells were sampled. EPA's comment was meant to require that Autumwood delete the inaccurate information and REPLACE IT with accurate information on the residential well sampling. It appears that all Autumwood did was delete the inaccurate information. As a result, there is no mention of specifics of the residential well sampling, and only an oblique mention that residential well sampling even occurred. Discussion of the residential well sampling is necessary to assessing site conditions.

EPA suggests the report be revised to include something like the following: "Residential-well samples were typically collected form spigots outside the home that were not in-line with treatment systems. Residential wells were purged for approximately 5 minutes at an unrecorded flow rate prior to sample collection. Field parameters were measured at the time of sample collection using a (name and model of field parameter measuring device)".

Techalloy should verify the correctness of this statement before adding it to the text.

Comment 2. Figure 5-7.

- 1. Minor points, but protocol usually requires cross-sections be done this way: y-axis should range from 720-840 feet (ft.). X-axis should start at zero (0) and A, and not have an offset to the left. X-axis should end at A' and 8,000, and not have an offset to the right of 7,500 ft.
- 2. There are no values given for the concentration contours. Every contour should have an assigned value shown on the figure.
- 3. There needs to be a legend describing what is being contoured--total concentration of volatile organic compounds (VOCs)? Concentration of some specific compound(s)? What compound(s)?
- 4. In a related vein, what constitutes the "Extent(s)" of the plume? Non-detect (ND)?

 1 part per billion (ppb)? Maximum contaminate level (MCL) exceedences? If so, which MCL? This lowest value needs to be defined in the appropriate figures because depending on the value the contouring may need to be revised.
- 5. Suggest "Extent" of plume, not "Extents".
- 6. Add a Legend/expand General Notes explaining what the various symbols used in the report are--depth of well boring, elevation of water table, geologic contact, location of well screen, line of equal concentration of total volatile organic compounds with identification of contour interval, concentration of compounds at well in micrograms per liter, trichloroethene (TCE), etc. Much of what Autumwood presents in Figure 5-6 could be applied to update this figure.
- 7. It's likely the bottom of the plume corresponds to the top of the silty clay layer. Suggest the figure be revised accordingly.
- 8. Autumwood should examine the Weston cross sections they submitted as a partial guide for what is being requested.
- 9. The data for the two Geoprobe locations near the Kiswaukee River should be included in this and all other figures showing contaminant distribution in map view. Omitting these data point's results in a depiction of the plume that is erroneously small.

Comment 3. Will comment on the individual figures as mentioned. Figure 5-1.

- 1. Suggest contouring go to either 1 ppb or non-detect. Stopping at 50 ppb leaves a fair amount of room for MCL exceedences to be left out of the contouring, which gives an underestimation of the extent of the problem. For example, the area of MCL exceedences for tetrachloroethylene (PCE) at MW-4 isn't in the "plume" when it should be.
- 2. Concentration values for the contours are reasonably easy to determine in this figure for the most part, but the General Notes should include a mention of the contour interval (50 ppb) for ease of analysis. EPA suggest something like "---50--- Line of equal

- concentration of total volatile organic compounds. Contour interval 50 micrograms per liter."
- 3. The contour around DGW1 should be 500 ppb. The contouring currently on the figure suggests it is 450 ppb.
- 4. Fully describe in the General Notes the water-level contours, including the date the water levels were taken. Something along the lines of "---820--- Water table altitude, in feet above Mean Sea Level, December 2012. Contour interval 1 ft."

Figure 5-5.

- 1. Comments on Figure 5-1 apply here and the appropriate changes should be made to this figure. By not contouring to ND, this figure more or less ignores the trichloroethane (TCA) near the plant, which is important to understanding the plume even if concentrations are low.
- 2. As near as EPA can tell from the two contours that are actually defined (20 and 100) the contour interval is 20 ppb. This interval puts the contours at DGW1 (shows 120-140, should be 140-160) and GP3 (shows less than 200, should be 200-220) in the wrong places. Either the contouring is off in the vicinity of DGW1 and GP3 or the contour intervals are inconsistent. In any event, the contours need to be labelled and the contouring needs to be accurate.

Figure 5-6.

- 1. Autumwood needs to decide what they wish to show on this figure. Much of what is presented isn't necessary for this figure to convey the location of the lines of cross section. EPA dose not object to Autumwood adding plumes and groundwater contours to the figure, but they aren't necessary.
- 2. Much, not all, of the information in the upper left corner and in the General Notes is not pertinent to this figure. Depending on what it ultimately shown on this figure, Autumwood should retain the pertinent information (at least the well and Geoprobe symbols and the line of section) and consolidate the explanation in either the upper left side of the figure or in the General Notes. All extraneous information (Geology, VOC abbreviations, etc.) should be deleted.
- 3. Comments on Figure 5-1 may be pertinent, depending on the final content of the figure.

Figure 5-7 and Figure 5-8.

- 1. Comments on Figure 5-7, except for comment 2, apply here.
- 2. Title in uninformative and should be revised.
- 3. Contouring REMAINS incorrect in section B-B'. Depending on how the extent of the plume is defined, contouring may be incorrect on section C-C'.

Comment 4. Table 2-1. There appears to be a decrease in the average daily flow since September 2012. Why is the average flow rare decreasing? How does this change effect the size of the capture zone relative to the plume? Provide a capture zone analysis to support your conclusion.

Techalloy has answered EPA's comments.

Comment 5.

- 1. Actually adding a title that enables the reader to determine that this document is Appendix 3 would make this document more useful.
- Most of what EPA asked for has not been added to the table. We can discuss data gaps, but Autumwood should already know things like well diameter and depth of screened interval.

Comment 6.

EPA asked for the dates of measurements for ALL water levels in every well, not just the most recent. Presumably Techalloy has this information somewhere in one of their files. If not, this information needs to be compiled to ensure we can assess if flow directions change through time.

REVISED PAGES 11 AND 12 OF THE REVISED STATUS REPORT

See response to comment 1.

Please provide a hard copy and electronic copy response to comments in 30-days. Should you have any questions, regarding this letter, need any additional information, or wish to discuss this matter further, please contact me at (312) 353-1243 or contact me by letter or by email at nordine.john@epa.gov.

Sincerely,

John Nordine, CPG, LPG

Project Manager

Corrective Action Section 2

Cc: Karen Peaceman, U.S. EPA

Jack Thorsen, Autumnwood ESH Consultants

Bob Kay, USGS

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REGION 5 77 WEST JACKSON BOULEVARD CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF: LU-9J

Sent by Certified Mail # 7009 1680 0000 7663 8166 and Electronic copy.

July 22, 2014

Mr. Gerald Ruopp Techalloy Company, Inc. 6509 Olson Road Union, Illinois 60180

United State Environmental Protection Agency's Comments on the June 2014, Monthly Progress Report EPA ID # ILD 005 178 975, Administrative Order on Consent (AOC), Docket No. R8H-5-99-008

Dear Mr. Ruopp,

This letter provides the United States Environmental Protection Agency (EPA) comments on the June 2014, Monthly Progress Report for the Techalloy facility in Union, Illinois prepared by Autumwood ESH Consultants, LLC (Autumnwood) dated May 10, 2014. EPA's comments are:

Part 1. Autumwood does not appear to have updated the discussion of the pumping at the Central Sod wells from the previous months report. This update should be done.

Discussion of Marengo Precipitation Data, a discussion of how to download the data or how difficult it is to get this data printed is not needed. Autumwood should just provide the information without comment.

Part 2.

MW-2 data. There has not been a maximum contaminant level (MCL) exceedences in this well since December 2007, not March 2008.

MW-4. The spread sheet only contains barium data for June 2005 that can't be attributed to a specific well. Why is this sheet here? Where is the rest of the data?

MW-5D, to my mind the discussion indicates an absence of trichloroethene (TCE) MCL exceedences for at least a few years prior to June 2014. There have been several TCE exceedences in the 2005-2014 time frame. This text should be re-written.

The last exceedences of the dichloromethane MCL in well MW-7 was in December 2009. The text should be corrected.

Discuss the residential well sampling. Or at least mention when it's going to be discussed.

Please provide a hard copy and electronic copy response to comments in 30-days. Should you have any questions, regarding this letter, need any additional information, or wish to discuss this matter further, please contact me at (312) 353-1243 or contact me by letter or by email at nordine.john@epa.gov.

Sincerely,

John Nordine, CPG, LPG

Project Manager

Corrective Action Section 2

Cc: Karen Peaceman, U.S. EPA

Jack Thorsen, Autumnwood ESH Consultants

Bob Kay, USGS

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
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REGION 5 77 WEST JACKSON BOULEVARD CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

LU-9J

Sent by Certified Mail # 7009 1680 0000 7663 8029 and Electronic copy

May 20, 2014

Mr. Gerald Ruopp Techalloy Company, Inc. 6509 Olson Road Union, Illinois 60180

United State Environmental Protection Agency's Comments on the April 2014, Monthly Progress Report EPA ID # ILD 005 178 975, Administrative Order on Consent (AOC), Docket No. R8H-5-99-008

Dear Mr. Ruopp,

This letter provides the United States Environmental Protection Agency (EPA) comments on the April 2014, Monthly Progress Report for the Techalloy facility in Union, Illinois prepared by Autumwood ESH Consultants, LLC (Autumnwood) dated May 10, 2014. EPA's comments are:

- 1. Contrary to Autumnwood's statements in the text, the attached electronic discharge monitoring report (eDMR) report is still reporting incorrect constituents—as is noted in the "comments" section of the eDMR. The text should report the error in the eDMR. Please provide a copy of the new National Pollutant Discharge Elimination System permit.
- 2. The sampling paperwork is acceptable, but the samples apparently were not shipped with ice again, or at least the volume of ice was insufficient to keep the samples at 4 degrees Celsius. The samples arrived at the lab at 8.8 degrees Celsius. The sampler should add sufficient ice to the sample cooler to keep them at the required temperature. This is a violation of protocol and needs to be noted in the text. This is not first time that samples have been received by the lab with samples above 4 degrees Celsius. EPA hopes that after meeting with Techalloy's sampler, observing how he collected the samples, packages the samples, and completes the sample paperwork that these problems will not reoccur.
- 3. Whenever a synonym is used in the text, provide a key of synonyms used, or tell the reader what it is the first time the synonym is used in the text.

Please provide a hard copy and electronic copy response to comments in 30-days. Should you have any questions, regarding this letter, need any additional information, or wish to discuss this matter further, please contact me at (312) 353-1243 or contact me by letter or by email at nordine.john@epa.gov.

Sincerely,

John Nordine, CPG, LPG

Project Manager

Corrective Action Section 2

Cc: Karen Peaceman, U.S. EPA

Jack Thorsen, Autumnwood ESH Consultants

Bob Kay, USGS

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REPLY TO THE ATTENTION OF:

LU-9J

Sent by Certified Mail # 7009 1680 0000 7663 8036 and Electronic copy

April 15, 2014

Mr. Gerald Ruopp Techalloy Company, Inc. 6509 Olson Road Union, Illinois 60180

United State Environmental Protection Agency's Comments on Revised Monthly Progress Report for August and October 2013
EPA ID # ILD 005 178 975, Administrative Order on Consent (AOC),
Docket No. R8H-5-99-008

Dear Mr. Ruopp,

This letter is in reference to Central Wire's (CW) Revised Monthly Progress Report for August 2013. Monthly Progress Report submitted to the United States Environmental Protection Agency (EPA) on February 11, 2014. To provide context EPA is providing the original comments for how well they were addressed in this revision. EPA comments are in italics on the revised report. On March 25, 2014, EPA received the Revised October 2013 Monthly Report.

General Comment: For all reports and submittals spell out all abbreviations the first time, it is used. All maps, charts, tables, and spreadsheets are required to have a title, site name, location, date(s), and a legend if needed.

Comment has not been addressed.

United States Environmental Protection Agency (EPAs) comments on the August-2013, Monthly Report from the Techalloy site, Union, Illinois:

Monthly Report, Progress Made--According to the attachment for the August 31, 2013, Discharge Monitoring Report (DMR) report water was analyzed for pH, 1,1,1 Trichloroethehane, (1,1,1-TCA), Tetrachloroethane (TCA), and Perchloric Acid (PCA). The analyses should have been for pH, 1,1,1-TCA, Trichlorethene TCE and Tetrachloroethene (PCE). EPA requires

Techalloy to provide copies of the actual analyses delivered from the lab for verification of what analyses performed.

The issue raised by this comment has not been addressed. As currently presented, Autumwood and Techalloy are submitting a document that they know includes false information. They know this information is false because EPA pointed the falsity out to them in prior review comments and asked them to correct the report. For the sake of accuracy, let alone avoiding legal complications, this progress report, and all appropriate subsequent reports, should mention the errors in the DMR report, the cause of the errors, and the steps being taken to correct the errors. Again, Autumwood has already provided an adequate explanation of the issues in the Jan. 2014 monthly progress report, so 90 percent of dealing with this issue is cut and paste the appropriate text.

The collection date for the effluent samples shall be provided in the text of all monthly reports, including this one.

There is no discussion of the data from well DGW-1D, only a mention of MCL exceedences. Data from this well, especially the June 2013 detection of vinyl chloride, provide a discussion of the results.

Comment has been addressed.

Monthly report, Summary of Validated Data and Results--The text in this section states the sampling results will be presented in the August monthly progress report. The sample results from the monitoring wells were documented in the August monthly progress report. Update the text. Move this section, according to the title, the discussion of the sampling results presented in the previous section.

Where is the discussion of the results of the residential well sampling? Some mention of the residential wells sampled and the results is appropriate.

The text in this section should be deleted and substituted with the discussion of the sampling results for both the monitoring wells and the residential supply wells.

Comment has been addressed.

Plot of water level and precipitation: The graph would be improved, if the precipitation data were presented on a secondary y-axis. Provide dates and water levels. Putting precipitation and pumping totals at the bottom of the file with no clear relation to dates and water levels is not informative.

Minor points: 1. Add a location to the title (Techalloy site). 2. Change the title this data does not include part of August and stretches into September. 3. The label for the x-axis should be "Date" or something like it, "August 2013" is inaccurate and redundant. 4. From the graph remove the

hours "0:00" in the labels for the tick marks on the x-axis. The date is good enough and adding hours just clutters the figure.

This comment has not been addressed.

Precipitation Data NOAA Marengo August-2013: Contrary to the file name, this data is only for part of September. It is useless for deciphering effects on water levels in most of August. Techalloy should either omit this file entirely or (preferably) present the NOAA data for the period during which the water levels were plotted (ideally Aug. 1 through Sept. 3).

This comment has not been addressed. The data in the provided Table is for the month of October 2013.

Comment has been addressed.

For the rest of the comments EPA cannot address the adequacy of the responses as none of the June 2013 data or Figures where provided as required!

MW-2-6-13: Provide the data from the June sampling event. File and plots end with data for March 2013. Should March 2013 be June 2013? Some (most?) of the concentrations presented on the graph and in the table do not seem to agree. The TCA concentration in June 1995 is as 510 ppb in the table. The graph puts it at more like 570 parts per billion (ppb). For April 2002, the table puts TCA concentration at 59 ppb. The graph puts it at more than 100 ppb. There are other apparent errors with the early TCA and probably at least some of the TCE.

EPA is not sure if these apparent errors are related to the method of plotting or some other software issue because when you click on the actual data points in the graph the values agree with what is in the table, but the data points does not agree with the scale for some reason. Furthermore, it seems like only some of the analytes are reported incorrectly, and only for some of the sampling period. Correct these plots (or tables).

MW-4-6-2013: Provide a site name to the graph in the title. X-axis ends at March 2013. Presumably, it should be June 2013.

MW-5-6-2013: Again, data ends at March 2013. Presumably it should end at be June 2013.

Add the June 1995 data to the graph. I understand it will skew the y-axis, but it would provide a complete depiction of the data.

Un-bold the 2007 concentrations of DCE, these concentrations do not exceed the MCL.

MW-5D-13: No comments.

MW-6-6-2013: In figure caption, "2012" should be "2013".

MW-7-6-2013: Why is the MCL at the end of the plot? Is it due to the scale and it is presentation as a dot at the end of the plot, it does not really provide any information. Techalloy should consider deleting it.

MW-8-6-13: X-axis ends at December 2012. Extend the axis to June 2013, as does the date on the figure caption.

PCE concentrations on the graph do not agree with those in the table for most, maybe all, of the reporting period. Fix the graphs at least some of the TCE values also seem to plot incorrectly.

MW-9-6-13. There is a stray "e" on the label for the y-axis. In addition, the graph should indicate the analyses are for PCE--not "series 1".

MW-HBR-6--13. No comments.

DGW-1D-6-13: Un-bold the DCA and TCE data in the table for June 2013.

DGW-11-6-13. No comments.

EPAs review of the Revised October 2013 Monthly Progress Report for Central Wire, (CW) Union, IL submitted by Autumwood Consultants (referred to as AC in the comments).

October-2013 Monthly Report:

1. AC states "The Route 176 irrigation well was not used in October 2013 and has been removed and stored for the winter. How you remove and store a well? A well pump, yes, a well, no. Did Central Sod actually remove the well pump and store it? Alternatively, did they just decommission the well for the winter? EPA requires AC to clarify what actually went on in the text

Comment has been addressed.

2. AC states, "Note that between 10/31/2013 and 11/2/2013 (3 days) there was 1.1 inches of precipitation. In that time frame the water levels in monitoring well DGW-2I went from the monthly low to the monthly, increasing 1.346 inches which seems to indicate that water levels are more susceptible to precipitation than groundwater pumping". The report should specify water levels were at a recorded HIGH on 11/2 (current text appears to omit a word or two). Technically, the period covered in the graph is not a month.

Comment has been addressed.

3. 10-31-13 DMR: Per comments on previous monthly reports, this document reports sample results for Trichloroethane and Tetrachloroethane when the actual results appear to be for Trichloroethene and Tetrachloroethene. Correct this error for the current and future reports. It

may be worthwhile to make the correction to previously submitted DMRs as well. Technically, CW appears to be submitting false information to EPA and is subject to penalties as a result.

The issue raised by this comment has not been addressed. As currently presented, Autumwood and Techalloy are submitting a document that they know includes false information. They know this information is false because EPA pointed the falsity out to them in prior review comments and asked them to correct the report. For the sake of accuracy, let alone avoiding legal complications, this progress report, and all appropriate subsequent reports, should mention the errors in the DMR report, the cause of the errors, and the steps being taken to correct the errors. Again, Autumwood has already provided an adequate explanation of the issues in the Jan. 2014 monthly progress report, so 90 percent of dealing with this issue is to cut and paste the appropriate text.

The lab report giving the results of the effluent sampling has 1,1,1-TCA at a concentration of <0.20 ug/L (non-detect). The 10-31-13 DMR form reports 1,1,1-TCA as =0.0002 mg/L, which means it is reported as having been detected at a concentration of 0.20 ug/L. For the sake of accuracy the 1,1,1-TCA value on the DMR form should be changed to <0.0002 mg/L. f there are problems with making this change Autumwood needs to explain the problem, and what steps are being taken to correct it.

4. Provide the actual date of sample collection to the document, or at the very least, the date of sample collection was presented in the monthly report.

Comment has not been addressed.

5. Water Elevation & Perception: Per comments on previous graphs for previous months, putting the pumping and precipitation data below the bottom of the graph makes it impossible to correlate water levels with pumping or precipitation even if that data could be related to a date on the graph—which does not appear to be the case. AT A MINIMUM, daily precipitation totals are required be plotted on the graph using a secondary y-axis and the dates the pumping totals were read should be provided with the pumping values at the bottom of the graph.

Comment has been addressed.

- 6. Well DWG-2I Data Logger Plot: No comments.
- 7. NOAA Precipitation Date-Marengo: No comments:

New comments:

The Chain of Custody Record form presented in the lab report seems to have some issues. First, all of the samples appear to have been collected at the exact same time (down to the minute). This document appears to be presenting false information. Future COC records should be filled out with the correct times.

Second, the form gives no indication of who relinquished the samples at the site (typically the sampler), so we have no way of knowing who collected the samples. This information is required on future forms.

January and February Monthly report did not include the analytical data from the laboratory. The analytical data from any samples related to the RCRA Order is a required submittal. Provide the actual date of sample collection to the document, or at the very least, the date of sample collection was presented in the monthly report.

- C. Per our phone conversation April 8, 2014, I have included the text from the 3008(h) Order that is required in all reports submitted to the EPA under Section XIV. Reporting and Documentation Certification paragraphs C. and D. The AOC states: "
- C. The Any report or other document submitted by Respondent pursuant to this Order which makes any representation concerning Respondent's compliance or noncompliance with any requirement of this Order shall be certified by a responsible corporate officer of Respondent or a duly authorized representative. A responsible corporate officer means: a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation.
- D. The certification required by paragraph C above, shall be in the following form:

"I certify that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to evaluate the information submitted. I certify that the information contained in or accompanying this submittal is true, accurate, and complete. As to those identified portion(s) of this submittal for which I cannot personally verify the accuracy, I certify that this submittal and all attachments were prepared in accordance with procedures designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those directly responsible for gathering the information, or the immediate supervisor of such person(s), the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Signature:	
Name:	
Title:	
Date:	

A reply is required in 30-days. Should you have any questions, regarding this letter, need any additional information, or wish to discuss this matter further, please contact me at (312) 353-1243 or contact me by email to nordine.john@epa.gov.

Sincerely,

John Nordine, CPG, LPG

Project Manager

Corrective Action Section 2

Cc: Karen Peaceman, U.S. EPA

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NDER: COMPLETE THIS SECTION Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. Article Addressed to:	A. Signature X
Mr. Gerald Ruopp Techalloy Company, Inc. 6509 Olson Road Union, Illinois 60180	3. Service Type Certified Mail Registered Return Receipt for Merchandise Insured Mail C.O.D. 4. Restricted Delivery? (Extra Fee)
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77 WEST JACKSON BOULEVARD CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

LU-9J

Sent by Certified Mail # 7009 1680 0000 7671 1975 and Electronic copy

April 15, 2014

Mr. Gerald Ruopp Techalloy Company, Inc. 6509 Olson Road Union, Illinois 60180

United State Environmental Protection Agency's Comments 2012 RCRA Corrective Measures Implementation Status Revised Report EPA ID # ILD 005 178 975, Administrative Order on Consent (AOC), Docket No. R8H-5-99-008

Dear Mr. Ruopp,

This letter provides the United States Environmental Protection Agency (EPAs) comments on the 2012 RCRA Corrective Measures Implementation Status Report for the Techalloy facility in Union, Illinois prepared by Autumwood Consultants, Revision 1, dated April 2014. The report does a good job of answering EPA's previous comments on the original report. EPA's comments are:

- 1. Page 11 and page 12--both pages contain text with the statements "Irrigation and residential wells were sampled by purging three water column volumes from the well prior to sampling". This statement is factually incorrect and should be deleted from the report.
- 2. Figure 5-7. The EPA requested geologic information to be presented on a cross section that includes the entire length of the plume. This cross section (and the others) does not include geologic information; it does not include the plant area as requested, revise the cross section. The label for the y-axis calls this section B-B', which is incorrect. The title for this figure is uninformative and should be changed to something like "Figure. 5-7. Hydrogeology and distribution of VOCs along line of section A-A', in the vicinity of the Central Wire facility, Union, Illinois, 2012-2013".

- 3. Figure 5-8. Delete the GP-17 and GP-19, they are well off line and provide no additional insight beyond GP16 and GP20. The values of the VOC contours are not provided, or are incompletely provided. Contouring on B-B' at GP-16 and GP-17 is wrong. Figure caption should be changed.
- 4. Table 2-1. There appears to be a decrease in the average daily flow since September 2012. Why is the average flow rare decreasing? How does this change effect the size of the capture zone relative to the plume? Provide a capture zone analysis to support your conclusion.
- 5. Attachment 3--a "Summary of Monitoring Well Data..." should include information on all the monitoring wells, not just three. The report should include a single table with pertinent information for all the monitoring wells. This information should ideally include name, land surface altitude, depth of screened interval, well diameter, construction material, and altitude of top of well casing.
- 6. Dates of all water-level measurements should be provided.

A reply is required in 30-days. Should you have any questions, regarding this letter, need any additional information, or wish to discuss this matter further, please contact me at (312) 353-1243 or contact me by email to nordine.john@epa.gov.

Sincerely,

John Nordine, CPG, LPG

John Nordina

Project Manager

Corrective Action Section 2

Cc: Karen Peaceman, U.S. EPA

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REGION 5 77 WEST JACKSON BOULEVARD CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

LU-9J

Sent by Certified Mail # 7009 1680 0000 7671 1944 and Electronic copy

February 12, 2014,

Mr. Gerald Ruopp Techalloy Company, Inc. 6509 Olson Road Union, Illinois 60180

United State Environmental Protection Agency's Comments on Monthly Report for January 2014

EPA ID # ILD 005 178 975, Administrative Order on Consent (AOC),

Docket No. R8H-5-99-008

Dear Mr. Ruopp,

This letter is in reference to Central Wire's (CW) Monthly Report for January 2014. Monthly Progress Report submitted to the United States Environmental Protection Agency (EPA) on February 11, 2014.

CW included the December 2013 sample results for the monitoring wells in their submission for the Corrective Measures Progress Report. However, in keeping with previous reports, some "Summary of Validated Data and Results" of the December 2013 sampling should be provided here.

- A. EPA did not received the results of the December 2013 sampling from the residential wells. B. EPA should be given the results of ALL of the December 2013 sampling in this document in addition to some brief summary discussion of the December 2013 data—were there any detections in the residential wells? Which monitoring wells had MCL exceedences and what compounds?
- C. This discussion should be supported by a figure showing the well locations, and a table or tables presenting a summary of all the sampling data from December 2013, including the field notes and the readings of all the field parameters during well purging. Per our discussion with CW last week, this document is where submission of all the readings to ensure stability was achieved should be provided. The table can be either with or without the results of previous

sampling from these wells. CW can use the table and figure from the Progress Report, so this presentation should not involve much additional effort.

D. CW is required submit the laboratory sheets providing the results of the well sampling with this document.

E. CW agreed to provide the lab sheets for the Pump &Treatment effluent sampling, along with the date of sample collection, in this and future submissions. Where is it?

If CW is planning to provide this information in some future monthly report, CW should note when they anticipate providing the data analysis in this document.

The monthly reports, as well as all other site documents, should be fully self contained. If CW is going to discuss a sampling event (and they should) they need to provide ALL the appropriate data from the sampling event. EPA is entitled to see the lab sheets to verify the data. EPA is entitled to see the field notes, including all the field parameter readings, to verify that procedures were being followed. EPA needs the data presented here rather than just being referenced in some other submission, or not provided at all. Again, part of CW's responsibility is to provide a comprehensive, easily tracked, record of what's going on at their site.

eDischarge Monitoring Report form or the record, analytes are still incorrect. CW is working on correcting this issue with IEPA. Add a comment in the text.

A reply is required in 30-days. Should you have any questions, regarding this letter, need any additional information, or wish to discuss this matter further, please contact me at (312) 353-1243 or contact me by email to nordine.john@epa.gov.

Sincerely,

John Nordine, CPG, LPG

Project Manager

Corrective Action Section 2

Cc: Karen Peaceman, U.S. EPA

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REGION 5 77 WEST JACKSON BOULEVARD CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

LU-9J

Via Certified Mail No. 7009 1680 0000 7671 1920 and Electronic copy

February 7, 2014

Mr. Gerald Ruopp Techalloy Company, Inc 6509 Olson Road Union, Illinois 60180

Re: Request to Eliminate Selected Metals from the Semiannual Groundwater Monitoring Events at Central Wire in Union, Illinois EPA ID # ILD 005 178 975, Administrative Order on Consent (AOC), Docket No. R8H-5-99-008

Dear Mr. Ruopp,

This letter is in reference to Central Wire's (CW) request to eliminate selected metals from the semiannual groundwater monitoring events, at CW in Union, Illinois. The letter submitted to the United States Environmental Protection Agency (EPA) on January 10, 2014. The EPA grants the request to eliminate the RCRA metal Mercury from the semiannual groundwater monitoring events. This decision is based on the data provided by CW.

Should you have any questions, regarding this letter, need any additional information, or wish to discuss this matter further, please contact me at (312) 353-1243 or contact me by email to nordine.john@epa.gov.

Sincerely,

John Nordine, CPG, LPG

Project Manager

Corrective Action Section 2

Cc: Karen Peaceman, U.S. EPA

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 5 77 WEST JACKSON BOLILEVARD

77 WEST JACKSON BOULEVARD CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

LU-9J

Via Certified Mail No. 7009 1680 0000 7671 1937 and Electronic copy

February 7, 2014

Mr. Gerald Ruopp Techalloy Company, Inc 6509 Olson Road Union, Illinois 60180

Re: Email Request for an Extension to Submit Revised 2012 RCRA Corrective Measures Implementation Field Investigation Report EPA ID # ILD 005 178 975, Administrative Order on Consent (AOC), Docket No. R8H-5-99-008

Dear Mr. Ruopp,

This letter is in reference to Central Wire's (CW) email request for an Extension to Submit Revised 2012 RCRA Corrective Measures Implementation Field Investigation Report submitted to the United States Environmental Protection Agency (EPA) dated November 2012. The United States Environmental Protection Agency (EPA) grants the extension request in an email dated February 6, 2014 by CW to extend the due date by 30 days of the Revised 2012 RCRA Corrective Measures Report to EPA with all the revisions discussed with EPA to date. The new due date is April 1, 2014

Should you have any questions, regarding this letter, need any additional information, or wish to discuss this matter further, please contact me at (312) 353-1243 or contact me by email to nordine.john@epa.gov.

Sincerely,

John Nordine, CPG, LPG

Project Manager

Corrective Action Section 2

Cc: Karen Peaceman, U.S. EPA

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REGION 5 77 WEST JACKSON BOULEVARD CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

LU-9J

Via Certified Mail No. 7009 1680 0000 7671 1258 and Electronic copy

January 30, 2014

Mr. Gerald Ruopp Techalloy Company, Inc 6509 Olson Road Union, Illinois 60180

Re: Request to Eliminate Selected Metals from the Semiannual Groundwater Monitoring Events at Central Wire in Union, Illinois EPA ID # ILD 005 178 975, Administrative Order on Consent (AOC), Docket No. R8H-5-99-008

Dear Mr. Ruopp,

This letter is in reference to Central Wire's (CW) request to eliminate selected metals from the semiannual groundwater monitoring events, at CW in Union, Illinois. The letter submitted to the United States Environmental Protection Agency (EPA) on January 10, 2014. The EPA grants the request to eliminate the required Resource Conservation and Recovery Act Metals: Arsenic, Barium, Selenium, and Silver from the semiannual groundwater monitoring events. This decision is based on the data provided by CW.

Should you have any questions, regarding this letter, need any additional information, or wish to discuss this matter further, please contact me at (312) 353-1243 or contact me by email to nordine.john@epa.gov.

Sincerely

John Nordine, CPG, LPG

Project Manager

Corrective Action Section 2

Cc: Karen Peaceman, U.S. EPA

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 77 WEST JACKSON BOULEVARD CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

LU-9J

Electronic copy December 18, 2013,

Mr. Gerald Ruopp Techalloy Company, Inc 6509 Olson Road Union, Illinois 60180

United State Environmentl Protection Agency's Comments on Monthly Reports for August, October, and Revised 2012 RCRA Corrective Measures Implementation Field Investigation Report EPA ID # ILD 005 178 975, Administrative Order on Consent (AOC), Docket No. R8H-5-99-008

Dear Mr. Ruopp,

This letter is in reference to Central Wire's (CW) Monthly Reports for August, October, and Revised 2012 RCRA Corrective Measures Implementation Field Investigation Report submitted to the United States Environmental Protection Agency (EPA). EPA's comments are included as an attachment.

A reply is required in 60-days. Should you have any questions, regarding this letter, need any additional information, or wish to discuss this matter further, please contact me at (312) 353-1243 or contact me by email to nordine.john@epa.gov.

Sincerely,

John Nordine, CPG, LPG

Project Manager

Corrective Action Section 2

Cc: Karen Peaceman, U.S. EPA

Jack Thorsen, Autumnwood ESH Consultants

Attachment: EPA comments

Attachment EPA Comments

General Comment: For all reports and submittals spell out all abbreviations the first time, it is used. All maps, charts, tables, and spreadsheets are required to have a title, site name, location, date(s), and a legend if needed.

United States Environmental Protection Agency (EPAs) comments on the August-2013, Monthly Report from the Techalloy site, Union, Illinois:

Monthly Report, Progress Made--According to the attachment for the August 31, 2013, Discharge Monitoring Report (DMR) report water was analyzed for pH, 1,1,1-Trichloroethane (1,1,1-TCA), Tetrachloroethane (TCA) and Perchloric Acid (PCA). The analyses should have been for pH, 1,1,1-TCA, Trichlorethene TCE and Tetrachloroethene (PCE). EPA requires Techalloy to provide copies of the actual analyses delivered from the lab for verification of what analyses performed.

There is no discussion of the data from well DGW-1D, only a mention of MCL exceedences. Data from this well, especially the June 2013 detection of vinyl chloride, provide a discussion of the results.

Monthly report, Summary of Validated Data and Results—The text in this section states the sampling results will be presented in the August monthly progress report. The sample results from the monitoring wells were documented in the August monthly progress report. Update the text. Move this section, according to the title, the discussion of the sampling results presented in the previous section.

Where is the discussion of the results of the residential well sampling? Some mention of the residential wells sampled and the results is appropriate.

The text in this section should be deleted and substituted with the discussion of the sampling results for both the monitoring wells and the residential supply wells.

Plot of water level and precipitation: The graph would be improved, if the precipitation data were presented on a secondary y-axis. Provide dates and water levels. Putting precipitation and pumping totals at the bottom of the file with no clear relation to dates and water levels is not informative.

Minor points: 1. Add a location to the title (Techalloy site). 2. Change the title this data does not include part of August and stretches into September. 3. The label for the x-axis should be "Date" or something like it, "August 2013" is inaccurate and redundant. 4. From the graph remove the hours "0:00" in the labels for the tick marks on the x-axis. The date is good enough and adding hours just clutters the figure.

Precipitation Data NOAA Marengo August-2013: Contrary to the file name, this data is only for part of September. It is useless for deciphering effects on water levels in most of August.

Techalloy should either omit this file entirely or (preferably) present the NOAA data for the period during which the water levels were plotted (ideally Aug. 1 through Sept. 3).

MW-2-6-13: Provide the data from the June sampling event. File and plots end with data for March 2013. Should March 2013 be June 2013?

Some (most?) of the concentrations presented on the graph and in the table do not seem to agree. The TCA concentration in June 1995 is as 510 ppb in the table. The graph puts it at more like 570 part per billion (ppb). For April 2002, the table puts TCA concentration at 59 ppb. The graph puts it at more than 100 ppb. There are other apparent errors with the early TCA and probably at least some of the TCE.

EPA is not sure if these apparent errors are related to the method of plotting or some other software issue because when you click on the actual data points in the graph the values agree with what is in the table, but the data points does not agree with the scale for some reason. Furthermore, it seems like only some of the analytes are reported incorrectly, and only for some of the sampling period. Correct these plots (or tables).

MW-4-6-2013: Provide a site name to the graph in the title. X-axis ends at March 2013. Presumably, it should be June 2013.

MW-5-6-2013: Again, data ends at March 2013. Presumably it should end at be June 2013.

Add the June 1995 data to the graph. I understand it will skew the y-axis, but it would provide a complete depiction of the data.

Un-bold the 2007 concentrations of DCE, these concentrations do not exceed the MCL.

MW-5D-13: No comments.

MW-6-6-2013: In figure caption, "2012" should be "2013".

MW-7-6-2013: Why is the MCL at the end of the plot? Is it due to the scale and it is presentation as a dot at the end of the plot, it does not really provide any information. Techalloy should consider deleting it.

MW-8-6-13: X-axis ends at December 2012. Extend the axis to June 2013, as does the date on the figure caption.

PCE concentrations on the graph do not agree with those in the table for most, maybe all, of the reporting period. Fix the graphs at least some of the TCE values also seem to plot incorrectly.

MW-9-6-13. There is a stray "e" on the label for the y-axis. In addition, the graph should indicate the analyses are for PCE--not "series 1".

MW-HBR-6--13. No comments.

DGW-1D-6-13: Un-bold the DCA and TCE data in the table for June 2013.

DGW-1I-6-13. No comments.

EPAs review of the October 2013 Monthly Progress Report for Central Wire, (CW) Union, IL submitted by Autumwood Consultants (referred to as AC in the comments).

October-2013 Monthly Report:

- 1. AC states "The Route 176 irrigation well was not used in October 2013 and has been removed and stored for the winter. How you remove and store a well? A well pump, yes, a well, no. Did Central Sod actually remove the well pump and store it? Alternatively, did they just decommission the well for the winter? EPA requires AC to clarify what actually went on in the text
- 2. AC states, "Note that between 10/31/2013 and 11/2/2013 (3 days) there was 1.1 inches of precipitation. In that time frame the water levels in monitoring well DGW-2I went from the monthly low to the monthly, increasing 1.346 inches which seems to indicate that water levels are more susceptible to precipitation than groundwater pumping". The report should specify water levels were at a recorded HIGH on 11/2 (current text appears to omit a word or two). Technically, the period covered in the graph is not a month.

10-31-13 DMR: Per comments on previous monthly reports, this document reports sample results for Trichloroethane and Tetrachloroethane when the actual results appear to be for Trichloroethene and Tetrachloroethene. Correct this error for the current and future reports. It may be worthwhile to make the correction to previously submitted DMRs as well. Technically, CW appears to be submitting false information to EPA and is subject to penalties as a result.

Provide the actual date of sample collection to the document, or at the very least the date of sample collection was presented in the monthly report.

Water Elevation & Perception: Per comments on previous graphs for previous months, putting the pumping and precipitation data below the bottom of the graph makes it impossible to correlate water levels with pumping or precipitation even if that data could be related to a date on the graph—which does not appear to be the case. AT A MINIMUM, daily precipitation totals are required be plotted on the graph using a secondary y-axis and the dates the pumping totals were read should be provided with the pumping values at the bottom of the graph.

Well DWG-2I Data Logger Plot: No comments.

NOAA Precipitation Date-Marengo: No comments:

Comments on the Central Wire Status Report from Autumnwood Consultants dated October 2013.

General Comments: Add a section to the early part of the report detailing the hydrogeology of the area.

At some point in this report, there should be a map with contours of the total concentration of VOCs during the most recent sampling events that would provide a depiction of the plume throughout its full extent. Provide separate contours of the concentrations of TCE, PCE, TCA, DCE. Provide at least one figure contouring total VOCs concentrations. Provide separate figures contouring PCE, TCE, TCA, DCE) in cross section along the centerline of the plume from the site to either DGW-2. Depicting these data will enable a fuller understanding of conditions at the site. There appear to be some anomalies to the location of some of the contaminants that might help identify natural attenuation processes such and biodegradation or hydrolysis.

This report could use some editorial review. There is numerous instances of redundant, vague, or irrelevant text that detract from the coherence of the report.

Section 1: The terminology for the wells and geoprobe locations in the text should match the terminology in the figures and tables. For example, the text refers to "extraction well no. 1" and "extraction well no. 2". Figure 1-2 shows EW-1 and EW-2, associated with a symbol the legend (which has faint symbols) does not clearly describe. This presentation is confusing to the reader. CW should be clear and be consistent with their terminology.

- **p. 1:** This report also should cover:
- a. the nature and extent of contamination at and near the site, not just at the downgradient edge.
- b. trends in contaminant concentration through time in the plume.
- c. factors influencing the nature and extent of contamination and trends in concentration--plume capture, biodegradation, source remediation, etc.

CentralWire seems to be generally addressing the first two topics in the text, but it would be best to state that they are being addressed. It would also help guide the report if all of these topics were explicitly dealt with in the report.

p. 2: Much of the text, especially the third paragraph, is difficult to decipher and EPA requires CW to be clarified text. There is a bit of a mash up of what was sampled for where and when put in with the sample results from different Volatile Organic Compounds (VOC) schedules in different wells? EPA suggests breaking up the discussion into a more distinct presentation of what analytes sampled and from which well during a given sampling event. Provide a separate presentation of analytes detected in what wells, and what the trends in concentration were in those wells. The current text goes back and forth on the discussion of the different types of contaminants, which is confusing.

Where is the actual "other VOC" data discussed in the third paragraph? EPA requires CW to provide the VOC data discussed in the third paragraph in a figure or table referenced in the text, so the reader can verify it.

"Central Well" probably should be changed to "Central Wire".

Provide the average pumping rate for each of the extraction wells for every month the well operated. This information will help with assessing trends in VOC concentrations and the extent of capture.

PCE concentrations at EW-2 have been increasing overall, not just since December 2011. Why was December 2011 chosen as the reference event?

TCE concentrations at EW-2 are essentially stable overall.

Discussion of the effluent concentrations should include the entire period of operation, not just the three events in 2013. This discussion also should be supported by actual data that is presented in the report, or at least supported by a reference to the actual documents containing the data.

p. 4: Somewhere in the text, not necessarily in this section, there needs to be some discussion and a figure showing the location of the capture zone for the Pump & Treat wells relative to the extent of the plume. How does CW know the plume is being captured--putting aside that part of the plume that was beyond capture when the wells were installed? The efficacy of the extraction wells is an important consideration and needs to be assessed in detail.

Why has the deeper well not been sampled? The fact that it was deepened does not in and of itself, negates the need for ongoing sampling at this location.

Provide at least some overall discussion of the sampling and results from the Union municipal wells. It is my recollection that at least one of these wells has shown VOCs in the past, and that these VOCs are attributed to another source. Present these facts, ideally including reference to a document that verifies CW is not the source of contamination at these wells, are already in the site literature.

CW should note the aquifer penetrated by the residential and municipal wells.

Data supporting the statements about the lack of VOC detections in the residential wells should be provided in a referenced table or appendix to this report.

p. 5: EPA is not sure what "field well stabilization parameters" are. EPA requires the final (stable) values of the field parameters presented in an appendix for all the sampling events. This information can be used to provide insight into the processes affecting VOC concentrations. Suggest the data in table 3-2 be included in one of the monthly summary reports so we can review the stabilization data, and that the final values be added to the comprehensive list.

A well with detectable VOCs, even if below the MCL, is still within the plume. CW should rewrite the discussion for conditions at wells MW-2 and perhaps MW-9 to reflect the difference between detection and a MCL exceedences.

MW-5, it is 190 ppb of PCE in January 2005, not 90 ppb. CW should consider depicting the decrease in PCE concentrations at this well as occurring from December 2003, when PCE concentrations were 210 ppb, through June 2013. TCA concentrations, although typically below MCLs, also show an overall decrease since June 2003.

MW-5D, CW should note apparent increase in TCE plume strength from June 1995 through June 2003, then an overall decrease from June 2003 through June 2013, although concentrations have been mostly stable since Dececember 2005. CW also should note that the non-detects for TCE in Jan. and June 2005 were associated with large spikes in PCE concentrations, potentially indicating an absence of PCE degradation during this period. CW should check the field parameters to determine if there were anomalous geochemical conditions during this time-period.

MW-6, note PCE is the analyte being discussed here. In figure 8, change "series 1" to "PCE". In addition, why is CW picking the time periods they are picking to compare trends in concentration for this well and a number of others? They do not appear to be the optimal times for comparison. For example, CW notes changes in concentration for well MW-6 from December 2005 through the most recent sampling. Why was December 2005 chosen? There is nothing particularly significant about the concentration on that date; it is just a continuation of the apparent overall downward trend in concentration since June 1995--with essentially stable concentrations for most of the period from June 2003 through more or less December 2010. CW should present concentration trends relative to time-periods providing clearer, more compelling, trends.

MW-HBR, CW is correct that the overall trend in PCE concentration in this well is down since 1995, but concentrations have been stable beginning in June 04.

p. 5/6: Does the discussion of VOC trends that straddle these pages refer to DGW-1I or 1D? CW needs to clarify what data applies to what well.

p. 6: EPA disagrees that there is a downward trend in VOC concentrations at the DGW 1 well cluster. The overall concentration trend at DGW1-I is clearly upward for DCE, and TCE from the start of the monitoring period and from about June 2007, at "best" concentrations have been essentially stable for the past 4-5 years. These patterns also hold, to a lesser extent, for TCA. This data suggests prolonged plume movement to the cluster beginning in late 2007, with an overall increase, to stable concentrations for the past few years.

At DGW-1D the concentration of DCE is clearly down through time, but the concentration of TCE is up (with the exception of the last sampling date). This data also suggest plume movement into the area by early 2002, with increasing to stable concentrations in the past few years. The decline in DCE coupled with the increase in TCE suggests less PCE/TCE biodegradation, or perhaps less hydrolysis of 1,1,1-TCA through time.

Add a paragraph describing the implications of the data shown in figure 3-1. It's not enough to show a figure, CW needs to explain what the figure shows (flow to the northwest) and what that means (plume movement to the northwest). This discussion should be included in the hydrogeology section suggested earlier in the report.

Section 4.0: This section would be easier to understand if background information on the hydrogeology, nature, and extent of contamination, and well information (define what aquifer is being used by the residential wells) was provided earlier in the report, including appropriate figures. Showing the leading edge of the plume is not sufficient. CW should add the requested information.

Provide references for the 2007-2008 transport modeling of VOC extent and the plume time-of-travel estimates presented in this section.

As near, as EPA can tell there is no figure 4-1 (or 4-2) in the report. What CW is calling figure 4-1 appears to be labeled figure 4-3. CW is required to provide accurately label the figures.

Section 4.1.b: The first sentence could use a re-write. Where is "...this well cluster..."?

Figure 4-3 referenced in the text, was labeled figure 4-4 in the figures. CW needs to revise their figure captions.

Section 4.2: CW should either discuss the TCE and TCA detections at the GP-22 location or omit discussion of the other VOCs detected and GP18 and GP22, or lead with the TCE and TCA. The current text is hard to follow and burying the discussion of the important data further obscures the discussion.

Figure 4-2 provides data and plots of VOC concentrations through time at some of the Geoprobe locations. Contrary to the text, it does not include "...plots of sampling locations...?" CW needs to re-write this text to accurately reflect the contents of the figure.

Figure 4-3 is a series of cross sections showing VOC concentrations at the various Geoprobe locations sampled in 2013, not fence diagrams. Provide the correct terminology in the text and the figures.

The contouring in figure 4-3 is incorrect in a number of locations.

There is no need for most of these cross sections. They contain largely redundant data and are poorly oriented relative to the leading edge of the plume and the line of section. CW should delete figure 4-3, and revise it to show conditions transverse to the plume along GP16-GP3-GP20, and along GP17-GP18-GP8-GP19.

A cross section along the direction of plume movement GP3-GP8-GP22 (or DGW2), in combination with a figure showing a map view of the TVOC concentrations in the Geoprobe locations during the 2013 sampling would provide a much clearer depiction of the leading edge

of the plume and should be added to the report. This map view figure would be similar to figure 4-3, but would provide more detail on the concentrations.

There is a gap between GP22 and GP19 where contamination near GP8 in excess of MCLs could migrate. This area should be sampled during future work.

Section 4.3: Revise the text to note the following: Data from the wells and geoprobe locations are consistent with a plume emanating from the CW site to the northwest. This plume is slowly attenuating in most of the area between CW and the extraction wells. The plume looks to be of stable to increasing strength at MW-HBR, EW-2, and the DGW1 cluster, and likely decreasing in strength at EW-1. The plume has migrated into the Geoprobe area and is increasing in strength at parts of the GP3 and GP8 clusters. It appears the plume has not migrated a substantial distance beyond the GP8 location as of 2013. The plume also has migrated to the vicinity of the Kishwaukee River near GP-9, but does not appear to have migrated north of the river in this area.

Depending on what is verifiable about the capture zone of EW-1 and EW-2, CW needs to discuss if the plume is or is not at least partly evading capture as it moves to the northwest.

Once the plume is beyond the capture zone, natural attenuation processes affect its ongoing movement. These processes need to be discussed and their affect on the plume should be qualitatively verified.

Figures: Most (all?) of the figures showing maps are upside down. They should be oriented correctly.

A number of figures appear to be missing or mislabeled. Where is figure 1-1? Where is figure 4-1? Provide all of figures correctly labeled and presented in order. This is a reoccurring problem.

Many of the figures contained: "Notes" sections. Information presented in notes would be more useful if it was presented elsewhere--mostly in the figure caption or within parts of the Legend--or deleted.

Many of the figures do not have location information (Central Wire Site, Union, Illinois) or time information (date of measurement of water levels for figure 3-1, date of sampling for figure 4-3). This information is required and inserted wherever needed.

Figure 1.2: Unless CW wishes to discuss the data from the SEMW wells in the text (and if they have it, perhaps they should, at least for depicting the plume), they should delete the symbols from the figure.

Again, the symbols for the various data-collections points are faint in the legend and difficult to differentiate particularly without the abbreviations that help differentiate them (MW, EW, GP, etc.). The symbols need to be clear more useful.

It is my recollection that the Kiswhaukee River and a Geoprobe location north of the river in the vicinity of GP-9 were sampled. The locations of these sampling points needs to be shown on the figure, the data needs to be shown in a table, and some discussion of this data and its implications as to the nature and extent of contamination and the impacted media needs to be provided in the text.

Figure 2-1 and elsewhere: Non-detections should be depicted in the table as "ND" or better still "< detection limit value" rather than "0".

Figure 3-1: Note the date the measurements were taken in the title.

Note "no data" from irrigation wells in the Legend (or just delete the wells you didn't get data from).

What is the "Note" below the Legend? The "sand and gravel aquifer" part of the note needs more explanation to be useful, or better yet it should be deleted.

That the potentiometric surface is presented in feet above mean sea level should be presented in the legend, not the note.

Figure 4-3: Provide a time period for the chemical conditions depicted on this figure.

Much of the chemistry stuff in the Legend is not pertinent to this figure. It should be deleted and presented in figures 4-3a or 4-3b.

In the notes, check the units of concentration, it's more likely to be ug/L than mg/L. Again, this level of chemistry doesn't belong in this figure anyway, so it would be best to just delete it.

Again, "sand and gravel aquifer" has no meaning as the report is currently written and it of limited utility in the notes anyway. Delete it.

Figures 4-3a and 4-3b: See previous comments about shortcomings in these cross sections. Of special importance to the cross sections themselves is the depiction of the "Extent of Plume". The depiction in the figures is in direct contradiction to the presentation of the data for the geoprobe locations. EPA thinks CW is attempting to depict the plume along A-A' rather than at the geoprobe locations, but this presentation is confusing given the presentation of the data for the geoprobes. In any event, the location of the plume at A-A' is unknown because there are no data points on the line of section. Per earlier comments the cross sections should be revamped, and when revamped the depiction of the extent of the plume should be based on the data from the sample locations rather than some extrapolation.

If the yellow line is meant to depict land surface, it should be noted.

The water table should be depicted as being present over the entire line of section.

Per comments on earlier versions of the cross sections, the screen interval for the geoprobe samples should be depicted and defined. Geologic information should be provided.

These titles are not very informative. Suggest something like "Results of VOC sampling from Geoprobe locations along the leading edge of the plume, Central Wire site, Union Illinois, October, 2012". At a minimum the date of sampling should be provided somewhere.

Figure 4-2: This figure should be presented before figure 4-3.

Again, the title is a bit confusing. EPA suggest something like "Concentrations of VOCs exceeding MCLs in Geoprobe wells....".

Delete ug/L from the end of the figure caption.

Figure 4-4: Per comments on earlier graphs, presenting the precipitation and hours pumped data at the bottom of the plot is confusing and difficult to relate to a time period. At a minimum, precipitation should be plotted on a secondary y axis to better show the relation between precipitation events and water levels.

Again, a location (Central Wire, Union Illinois) would be appropriate in the title.

Tables: there should be a master table (or appendix) of the pertinent features of all the wells and geoprobe locations--name, land surface altitude, altitude of top and bottom of screen, water level elevation for each measurement date, etc.

Table 3-1: Again, this table is fine as far as it goes, but the information is probably better presented in a table or appendix with the data from all the other sampling points rather than as a stand alone effort.

Delete "Only chemicals with" here. Nothing is being plotted on this table.

Tables 3-2 and 4-2: Again, this detailed information should have been presented in a monthly sampling summary. The final, stable values should be presented in an appendix with all the other chemical data.

Table 4-1: This data should be included in an appendix with all the data from all the sampling points.

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 5 77 WEST JACKSON BOULEVARD

CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

LIJ-91

Via Certified Mail No. 7009 1680 0000 7671 1210 and Electronic copy

September 19, 2013,

Mr. Gerald Ruopp Techalloy Company, Inc. 6509 Olson Road Union, Illinois 60180

Email Request for an Extension to Submit Revised 2012 RCRA Corrective Measures Implementation Field Investigation Report EPA ID # ILD 005 178 975, Administrative Order on Consent (AOC), Docket No. R8H-5-99-008

Dear Mr. Ruopp,

This letter is in reference to Central Wire's (CW) email request for an Extension to Submit Revised 2012 RCRA Corrective Measures Implementation Field Investigation Report submitted to the United States Environmental Protection Agency (EPA) dated November 2012. The United States Environmental Protection Agency (EPA) grants the extension request in an email dated September 19, 2013 by CW to extend the due date by 30 days of the Revised 2012 RCRA Corrective Measures Report to EPA with all the revisions discussed with EPA to date. The new due date is October 21, 2013. Please remember that Under the Administrative Order on Consent (AOC), Docket No. R8H-5-99-008, Section XV. Delay in Performance/Stipulated Penalties A "For failure to complete or submit other work not included in paragraph A.1 and A.2. of this section in a manner acceptable to U.S. EPA or at the time required pursuant to this Order: \$1,500 per day for the first seven days of such violation, \$1,500 per day for the eighth through the twenty-first day of such violation, and \$2,500 per day for each day of such violation thereafter:".

Should you have any questions, regarding this letter, need any additional information, or wish to discuss this matter further, please contact me at (312) 353-1243 or contact me by email to nordine.john@epa.gov.

Sincerely,

John Nordine, CPG, LPG

Project Manager

Corrective Action Section 2

Cc: Karen Peaceman, U.S. EPA
Jack Thorsen, Autumnwood ESH Consultants

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 Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. Article Addressed to: Mr. Gerald Ruopp Techalloy Company, Inc 6509 Olson Road Union, Illlinois 60180 	A. Received by (Rlease Print Clearly) B. Date of Delivery 3/14/3 C. Signature X MULL LAVEL Agent Addressee D. Is delivery address different from item 1? Yes If YES, enter delivery address below: No 3. Service Type Certified Mail Express Mail Registered Return Receipt for Merchandise Insured Mail C.O.D. 4. Restricted Delivery? (Extra Fee)
Article Number (Transfer from service label)	1680 0000 7671 1142
	ic Return Receipt ro≥595-01-M-14



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 5

77 WEST JACKSON BOULEVARD CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

LU-9J

Via Certified Mail No. 7009 1680 0000 7671 1142 and Electronic copy

March 12, 2013,

Mr. Gerald Ruopp Techalloy Company, Inc 6509 Olson Road Union, Illinois 60180

Re: Revised 2012 RCRA Corrective Measures Implementation Field Investigation Report and Autumnwood ESH Consultants November 20, 2012 Letter Central Wire, Site Techalloy Company, EPA ID # ILD 005 178 975, Administrative Order on Consent (AOC), Docket No. R8H-5-99-008

Dear Mr. Ruopp,

This letter is in reference to Central Wire's (CW) Revised 2012 RCRA Corrective Measures Implementation Field Investigation Report submitted to the United States Environmental Protection Agency (EPA) dated November 2012, Autumnwood ESH Consultants February 12, 2013 letter, and Revised October Monthly Report. EPA comments on the report are attached. Please respond within 45 days.

Should you have any questions, regarding this letter, need any additional information, or wish to discuss this matter further, please contact me at (312) 353-1243 or contact me by e-mail to nordine.john@epa.gov.

Sincerely,

John Nordine, CPG, LPG

Project Manager

Corrective Action Section 2

Cc: Karen Peaceman, U.S. EPA
Jack Thorsen, Autumnwood ESH Consultants

Attachment: EPA Comments on revised 2012 RCRA Corrective Measures Implementation Field Investigation Report, Autumnwood ESH Consultants November 20, 2012 letter, and revised October Monthly Report.

ATTACHMENT

- A. If Techalloy got rid of the breaks in the data they could get a complete graph of the water levels in September and early October rather than having to break the plots up into several graphs which show some odd data, and breaks in the data. At least this presentation is possible with my version of Excel. Techalloy's graphs are inadequate to support this discussion and need to be improved. They should look more like the plot for September 29-October 2, 2012 than the rest of the plots.
- B. For the water-level trends in DGW-2I noted on September 24-October 3, 2013, 0.5 ft of water-level decline was observed in the well during this period, when the irrigation well(s) were pumped for 26 and 58 hours. Bob Kay (USGS) checked the USGS groundwater level data from wells open to the glacial drift west of Marengo during this time period and the water-level change showed a downward spike of about 0.2 to 0.8 ft during this time period, with a 0.8 ft downward spike on October 1, 2012. This trough was clearly related to pumping, but almost certainly not the Sod farm wells. The data from another other wells north of Union shows a slight ((0.05 ft) downward trend. Basically the closest background well shows no change during this time period.
- C. Techalloy is correct that most of the 0.5 ft drop in water level occurred from the evening of September 23, 2012, through the early afternoon of September 25, but I don't see how this drop can be related to precipitation—either its presence or absence. The decline in water level is fairly precipitous and occurs mainly on the 24th. Because there had been some decline in water levels likely before the time of measurement of 0 pumping hours on September 24, this decline is not clearly related to pumping, but it seems to be more closely attributable to pumping than precipitation.
- D. There were other fairly large decreases in water level at DGW-2I in September 2012 like the about 0.7 ft drop on the 14th through the 17th. Can Techalloy provide pumping data for the period before September 24? It's helpful to have the pumping and water-level data for the full period of record or at least for the full period of record covered by this (and each prior) monthly report. EPA requires a month by month analysis of ALL the water level and pumping data to more clearly determine what's going on here, at least for this calendar year. EPA was hoping we could look at a few time periods to see at pattern, but one time period is insufficient, and the pattern it shows is ambiguous.

Trends in P&T Influent Concentrations: again, these graphs need to be improved. The top plot is somewhat OK, but would benefit from "Concentration, in micrograms per liter" as the Y axis label and should have some sort of dot to denote the actual date the sample was collected, use of just lines leaves the actual sampling date unclear. Remember, plots should be fully explanatory, stand alone presentations of data. We may now what "conc'n" means, but that doesn't mean other readers will.

The middle plot needs a better title, so the reader knows which well this data comes from. It also needs the improvements suggested for the top graph.

Bottom plot also needs improvements suggested for the top graph.

Note VOC concentrations are down in well 1, and generally up in well 2. The Well 2 is located southwest of Well 1 and less in line with the area of geoprobe investigation than well 1. Definition of the location and extent of the plume west of well 2 and south of the geoprobed area should be completed.

GENERAL COMMENT ON ALL THE PLOTS OF WELL DATA

Most or all of the plots could stand improvement. Techalloy should check to make sure all of the graph titles (they tend to vary from well to well) and axis titles/labels, what data is presented in the tables, etc. are consistent and correct. They should re-check the data to make sure the plots are accurate. EPA was noted issues on some plots, but Techalloy should make sure all comments are appropriately applied to all the graphs.

MW-2.xls--previous comments about axis labels and highlighting the sample dates apply. Plot the TCA data, there are at least 2 MCL exceedences according to the table. Some of the subsequent table's present all/most of the chlorinated ethene and ethane results, even if non-detects. Consider doing that for all the wells so the reader knows what was analyzed for. This data presentation alongside the plots isn't necessary if all the data is presented in a table in the reports, but it needs to be noted somewhere the reader can check it.

What's going on with the tables presented above the plots? They seem to show inorganic data for "Tech" series wells that have no apparent relation to the wells being plotted. Techalloy needs to re-present these data in a clear way.

MW4.xls--this is how the y-axis title and the data plots should look. However, the boxes on the x-axis should be gotten rid of, as should the concentration data and the poor placement of the axis title. In addition, the numbers on the graph and the numbers on the table don't match. This data needs to be corrected and re-presented.

MW5.xls--consider requiring plotting the j-95 data. It'll expand the graph and make the other data a bit harder to follow (unless the graph scale is expanded) but it'll improve the data coverage. Revise the title. It's incorrect as written.

DGW-1I: plot the early data.

DGW-1D: plot the D-12 data.

December 2012 Monthly Progress Report

Again, the data to be presented in the appendices needs to be complete and properly presented. A figure showing the location of all of these wells also needs to be presented with this report.

Techalloy needs to provide the information with a comprehensive presentation of the data and is updated whenever new data becomes available. However, we also asked for some analysis of

the data, and it isn't here. If Techalloy is going to use this report to provide their "state of the site" analysis, they need to discuss the state of the site, not just present the data.

January 2013 Monthly Report:

In our January 2013 meeting with Techalloy agreed to provide a maps showing the plume (plan view and cross section) and the potentiometric surface of the aquifer. In addition to figures and tables that need upgrading to be "publication ready" there is a lack of analysis of the water level and water-quality data through space and time.

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Mr. Gerald Ruopp Sirest Apt. No. or PO Box No. City, State, ZiP. 6509 Olson Road Union, Illlinois 60180	

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6509 Olson Road Union, Illlinois 60180	3. Service Type Certified Mail
	4. Restricted Delivery? (Extra Fee) Yes
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 77 WEST JACKSON BOULEVARD CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

LU-9J

Via Certified Mail No. 7009 1680 0000 7671 1128 and Electronic copy

December 18, 2012

Mr. Gerald Ruopp Techalloy Company, Inc 6509 Olson Road Union, Illinois 60180

Re: 2012 R

2012 RCRA Corrective Measures

Implementation Field Investigation Report

and Autumnwood ESH Consultants

November 20, 2012 Letter

Central Wire, Site Techalloy Company,

EPA ID # ILD 005 178 975

Administrative Order on Consent (AOC)

Docket No. R8H-5-99-008

Dear Mr. Ruopp,

This letter is in reference to Central Wire's (CW) 2012 RCRA Corrective Measures Implementation Field Investigation Report submitted to the United States Environmental Protection Agency (EPA) dated November 2012, Autumnwood ESH Consultants November 20, 2012 letter, and October Monthly Report. EPA comments on the report are attached. Please respond within 45 days.

Should you have any questions, regarding this letter, need any additional information, or wish to discuss this matter further, please contact me at (312) 353-1243 or contact me by e-mail to nordine.john@epa.gov.

Sincerely,

John Nordine, CPG, LPG

Project Manager

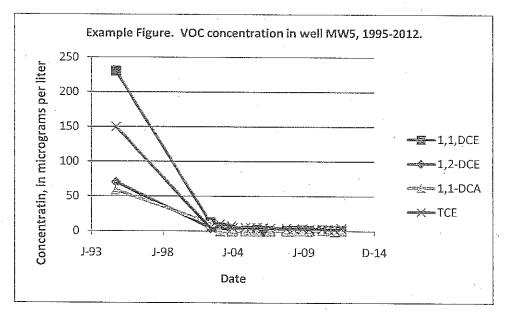
Corrective Action Section 2

Cc: Karen Peaceman, U.S. EPA

Attachment: EPA Comments on 2012 RCRA Corrective Measures Implementation Field Investigation Report, Autumnwood ESH Consultants November 20, 2012 letter, and October Monthly Report.

United States Environmental Protection Agency Comments

1. Plots or charts of volatile organic compounds (VOCs) showing trends in concentration through time at each of the wells where there have been maximum contaminate levels (MCL) exceedances have not been adequately provided for the monitoring wells and the influent for the pump-and-treat wells. As noted in comments below, there are some poorly constructed tables that can be used to decipher trends in VOC concentrations through time at the monitoring wells and a table of the average concentration of some VOCs in the treatment influent. These presentations are inadequate. These plots need to be adequately explained. Suggest the file be deleted and starts over from scratch and see November 13, 2011 e-mail to Autumnwood ESH Consultants. Below is an example of the plots should look like.



- 2. Historical water-quality data from all of the geoprobe locations has not been provided.
- 4. Figure showing the water-table configuration throughout the plume area has not been provided (Piezometric surface map).
- As noted below, proper plots of water levels through time at the DGW2 cluster, with separate plots of water levels during periods of pumping at the Sod Farm wells. Central Wire (CW) appears to have taken a stab at this presentation based on the file name, but what's provided is not adequately explained.
- Trends in Groundwater Treatment Plant Influent Concentration 2007-2012: This file contains one (apparently the average) concentration for PCE, TCE, and TCA per year. It's my understanding samples were collected more than once per year from each well, so CW should present the results from each well for each sampling round, not the average value for both wells over the year. If samples actually were collected just once per year, the reporting period is adequate. If samples were collected from water that's a combination of the 2 extraction wells, reporting the concentration for the combination water is adequate, providing every sample is presented. CW also presented data only for tetrachloroethene (PCE), trichloroethene (TCE), and 1,1,1-trachloroethane (TCA). Provide all sampling results, not just PCE, TCE, and TCA, Provide

the samples results for chlorinated ethenes and ethanes at a minimum. Were there no VC, DCE, or DCA detections in these samples? Were no analyses performed for compounds other than VOCs? If there were other detections, they should be presented. If there were not, CW should note there were no hits for these compounds.

- 7. Are samples collected from each well or at a point that's a combination of water from the two wells? If the influent water is a combination, it would be useful to collect samples from each well on an annual basis to see what's happening with the plume at each well.
- 8. Table 1 Semi-annual RCRA sampling; Table 1 VOC D6-12...: The tables presenting the RCRA semi-annual sampling and the RCRA and Residential well sampling appear to present only parts of the data when taken separately, and appear to present a mishmash of data for the wells covering partly overlapping, and partly different time periods when they're combined. This presentation of the data is confused and complicates data analysis. CW should put all the data for a given well together in one file rather than presenting them in multiple files.
- 9. Additionally, the breaks on the sheets of Table 1 semi-annual RCRA sampling, break up data from a given well onto multiple sheets, making the data hard to decipher--particularly what well some of the data came from. Provide the data of each well as a separate table.
- 10. Plots of GP sites exceeding MCLs: these plots tend to indicate increased concentrations of certain VOCs in 2012, and to some degree overall, in GP8S and the deeper parts of the aquifer at GP3.
 - October-2012 Monthly Report: EPA has a couple new comments based on the rest of the information received in this submission. First, MCL exceedances at the GP3 and GP8 locations rate mention.
- 1. Figure with data: VOCs have been detected downgradient of the line for the "Plume Extents", which by my definition of a plume extent (basically extent of detection) makes the line incorrect. Suggest changing "Plume Extents" to "Extent of MCL Exceedences", or something similar.
 - a. Provide a figure showing the wells mentioned in this report--especially the various residential wells and the Sod Farm wells.
 - b. p. 2. Change to "The objectives of the 2012 field investigation were to:"
 - c. p. 3, 2nd bullet. it's 20 minutes, not 20 seconds.
 - d. p. 3, last paragraph EPA suggests text be altered to "No chemicals of concern were detected above the MCLs at GP-18 or GP-22, see Table 1."
 - e. General comment, can we avoid redundant text? There are at least 2 mentions of the 24-hour turnaround at GP-18 and -22. Suggest deleting it from page 3 and just presenting it here.
 - f. p. 4. Just say the toluene and acetone detections are likely field or lab contamination (even if not detected in the blanks) and are not part of the CW plume. Giving this detection undue credence could risk in the mis-identification of the plume boundaries.
 - g. TCA at GP-03-57 was 210 ppb, not 201.
 - h. Note the detection of 37 ppb of TCA at GP-08-27
 - i. Where is Figure 1? or Figure 2? The figure could be either figure (somewhat more likely to be

Figure 2), particularly when it doesn't have a caption. j. The report cites Tables 1 and 6. Where are tables 2-5?

- 3. Table 1. Add the MCL for vinyl chloride. Why are there 2 rows for acetone?
- 4. Tables 1-5. The point of EPA's request to compile all the geoprobe (and other) data was to get all this data together in ONE table to allow trends to be determined, not to present it in 5 separate tables.
- 5. Field data file. It is interesting to note that many of the samples with concentrations of VOCs other than toluene had elevated dissolved oxygen—especially in the shallow part of the aquifer at the leading edge of the plume. Check value for last pH reading at GP-16-57
- 6. Groundwater-pumping-precipitation correlation. Per comments on an earlier submission these figures, as presented, make absolutely no sense. CW needs to plot the secondary axis as pumping period (or precipitation) and label it, even if the secondary (amount of pumping or precipitation) axis was provided these figures are still inadequate to assessing the impact of pumping on water levels or precipitation. The figures should be deleted, and CW should provide the plots we asked them for. The plots CW does generate should be referenced in the report.
- 7. Provide a discussion on; where is the plume in terms of shallow, mid, or deep parts of the aquifer? or is it more or less everywhere? is the plume expanding? contracting? stable (within limits)? what is impacting the expansion/construction/stability?

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 5 77 WEST JACKSON BOULEVARD CHICAGO, IL 60604-3590

Via Certified Mail No. 7009 1680 0000 7671 1890 and Electronic copy

September 18, 2012

Mr. Gerald Ruopp Techalloy Company, Inc 6509 Olson Road Union, Illinois 60180

Re:

Request to Terminate the RCRA Semiannual

Monitoring of Metals Central Wire, Site Techalloy Company,

EPA ID # ILD 005 178 975

Administrative Order on Consent (AOC)

Docket No. R8H-5-99-008

Dear Mr. Ruopp,

This letter is in reference to Central Wire's (CW) Request to Terminate the RCRA Semiannual Monitoring of Metals to the United States Environmental Protection Agency (EPA) dated September 7, 2012. EPA approves the request to terminate semiannual monitoring of RCRA Metals at the two downgradient well nests which includes DGW-1S, DGW-1I, DGW-1D, DGW-2S, DGW-2I, and DGW-2D. CW will continue to monitor these wells for volatile organic compounds.

Should you have any questions, regarding this letter, need any additional information, or wish to discuss this matter further, please contact me at (312) 353-1243 or contact me by e-mail to nordine.john@epa.gov.

Sincerely,

John Nordine, CPG, LPG

Project Manager

Corrective Action Section 2

Cc: Karen Peaceman, U.S. EPA

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Union, Illinois 60180	÷	Certified Mail	t for Merchandise
		4. Restricted Delivery? (Extra Fee)	☐ Yes
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 5 77 WEST JACKSON BOULEVARD CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

LU-9J

Via Certified Mail No. 7009 1680 0000 7671 1487and Electronic copy

September 18, 2012

Mr. Gerald Ruopp Techalloy Company, Inc 6509 Olson Road Union, Illinois 60180

Re: 2012 RCRA CMI Field Investigation
Work Plan, Central Wire, Site
Techalloy Company,
EPA ID # ILD 005 178 975
Administrative Order on Consent (AOC)

Docket No. R8H-5-99-008

Dear Mr. Ruopp,

This letter is in reference to Central Wire's (CW) consultant's Autumnwood ESH Consultants 2012 RCRA CMI Field Investigation Work Plan to the United States Environmental Protection Agency (EPA) dated September 7, 2012. EPA approves the work plan with comments:

• Contingency plan to proceed if GP-18 or GP-22 comes back contaminated. EPA agrees with collecting data approximately 100-150 ft downgradient of GP-22, but a single downgradient location will likely give insufficient plume definition. Consideration should be given to moving most or the entire proposed sampling network (excepting GP-3, which should be kept at its historical location) to more downgradient locations in the event of exceedances at GP-18 or GP-22. Rather than pre-committing to locations, we may want to just make the locations a field call between Central Wire and EPA.

What happens if the "new" downgradient location (GP-23) comes back contaminated? Without 24-hour turnaround on this "new" location we won't know if the plume is present or absent at this location (and further downgradient) until after we've left the field. Therefore if a sample is required at sample at GP-23, a 24 hour laboratory sample turnaround is required, then CW and EPA will decide how to proceed based on that data.

• The discussion of "excessive drawdown" on pages 3 and 4 kind of miss the point, there's a difference between dewatering the entire water column and inducing more than 0.30 ft

of drawdown. Additionally, the ambient fluctuation in water levels observed during the previous monitoring has no relevance to this issue. CW should consider just writing that drawdown measurements are not possible, so they will not be taken, but these deposits are permeable and there is likely to be fairly minimal drawdown in the test intervals. The rest should be considered for deletion.

- CW can omit the collection temperature stabilization, because it is recognized that temperature responds to ambient effects. Report pH stabilization in +/-0.1 standard units, rather than a percentage.
- On low flow sampling the Text does not explicitly state parameter stabilization, EPA requires three (3) consecutive stable readings for the parameters collected.
- Figure 2 add road names to the figure.

Should you have any questions, regarding this letter, need any additional information, or wish to discuss this matter further, please contact me at (312) 353-1243 or contact me by e-mail to nordine.john@epa.gov.

Sincerely,

John Nordine, CPG, LPG

Project Manager

Corrective Action Section 2

Cc: Karen Peaceman, U.S. EPA



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 5 77 WEST JACKSON BOULEVARD CHICAGO, IL 60604-3590

December 13, 2011

REPLY TO THE ATTENTION OF:

L-8J

CERTIFIED MAIL #7009 1680 0000 7671 1074 RETURN RECEIPT REQUESTED

Mr. Anju Malhotra
Senior Manager
Global Transaction Banking
The Bank of Nova Scotia
Ottawa & Region Commercial Banking Center
119 Queen Street, 5th Floor
Ottawa, Ontario K1P 6L8

RE:

Cancellation of Irrevocable Standby Letter of Credit No. S4006/219856 Issued February 8, 2005 by The Bank of Nova Scotia for Techalloy, Company, Inc. Resource and Recovery Act, Techalloy, Company, Inc. Facility Approval

Dear Mr. Malhotra:

By this letter, the U. S. Environmental Protection Agency is authorizing the cancellation of the Irrevocable Standby Letter of Credit No. S40006/219856 (LOC). The LOC was issued by the Bank of Nova Scotia on February 8, 2005 in the amount \$651,000.00 at the request and for the account of Techalloy Company, Inc. (Techalloy) to serve as financial assurance for the RCRA Corrective Action approved Techalloy Facility. The original LOC is enclosed with this letter.

Techalloy has established replacement financial assurance; EPA agrees to release LOC No. S40006/219856 so that Techalloy may terminate this LOC. If you have any questions regarding this letter, please do not hesitate to contact John Nordine, of my staff, at 312-353-1243 or nordine.john@epa.gov.

Sincerely,

Margaret M. Guerriero

Director

Land and Chemicals Division

cc: Brad Daily, Controller,

Techalloy Company Inc./Central Wire Industries Ltd

Enclosure: Irrevocable Standby Letter of Credit No. S40006/219856

bcc: Karen Peaceman, EPA

Saray Cubacub, EPA
John Nordine, EPA

February 8th 2005.



Regional Administrator Region V U.S. Environmental Protection Agency 77 West Jackson Boulevard Chicago, IL 60604

IRREVOCABLE STANDBY LETTER OF CREDIT NO. S40006/219856

Dear Sir or Madam:

We hereby establish our Irrevocable Standby Letter of Credit No. S40006/219856 in your favor, at the request and for the account of Techalloy Company, Inc. ("Techalloy"), 6509 Olson Road, P.O. Box 423, Union, IL 60180-0423 up to the aggregate amount of five hundred sixty-one thousand U.S. dollars \$561,000.00, available upon presentation of

- (1) your sight draft, bearing reference to this Standby Letter of Credit No. S40006/219856, and
- (2) your signed statement reading as follows: "I certify that the amount of the draft is payable pursuant to the terms of the Administrative Order on Consent for Corrective Measures Implementation, Docket No. R8H-5-99-008."

This letter of credit is effective as of February 8th 2005 and shall expire on February 7th 2006, but such expiration date shall be automatically extended for a period of one year on February 8th 2006 and on each successive expiration date, unless, at least 120 days before the current expiration date, we notify both you and Techalloy by certified mail that we have decided not to extend this letter of credit beyond the current expiration date. In the event you are so notified, any unused portion of the credit shall be available upon presentation of your sight draft for 120 days after the date of receipt by both you and Techalloy, as shown on the signed return receipts.

Whenever the letter of credit is drawn on, under and in compliance with the terms of this credit, we shall duly honor such draft upon presentation to us, and we shall deposit the amount of the draft pursuant to your instructions.



-2-



This credit is subject to the Uniform Customs and Practice for Documentary Credits (1993 Revision), International Chamber of Commerce, Publication No.500.

THE BANK OF NOVA SCOTIA

Dated in Ottawa, Ontario, Canada this 8th day of February 2005.

W.L. Sugrue \$2333 Assistant Manager,

International Trade Services

S.A. Awan A917

Senior Manager,

International Trade Services



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 5

77 WEST JACKSON BOULEVARD CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

DEC 0 1 2011

L-8J

Mr. Anju Malhotra
Senior Manger
Global Transaction Banking
The Bank of Nova Scotia
Ottawa & Region Commercial Banking Center
119 Queen Street, 5th Floor

RE:

Cancellation of Irrevocable Standby Letter of Credit No. S4006/219856 Issued February 8, 2005 by The Bank of Nova Scotia for Techalloy, Company, Inc. Resource and Recovery Act, Techalloy, Company, Inc. Facility Approval

Dear Mr. Malhotra:

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Techalloy has established replacement financial assurance; EPA agrees to release LOC No. S40006/219856 so that Techalloy may terminate this LOC. If you have any questions regarding this letter, please do not hesitate to contact John Nordine, of my staff, at 312-353-1243 or nordine.john@epa.gov.

Sincerely,

Margaret M. Guerriero

Director

Land and Chemicals Division

cc: Brad Daily, Controller,

Techalloy Company Inc./Central Wire Industries Ltd

Enclosure: Irrevocable Standby Letter of Credit No. S40006/219856

bcc: Karen Peaceman, EPA Saray Cubacub, EPA John Nordine, EPA

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
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Mr. Gerald Ruopp Techalloy Company, Inc 6509 Olson Road Union, Illlinois 60180	3. Service Type Certified Mail Registered Return Receipt for Merchandise Insured Mail C.O.D.
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PS Form 3811, March 2001 Domestic Ret	turn Receipt 102595-01-M-1424





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5 77 WEST-JACKSON BOULEVARD CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

LU-9J

Via Certified Mail No. 7009 1680 0000 7671 0367 and Electronic copy

July 1, 2011

Mr. Gerald Ruopp Techalloy Company, Inc 6509 Olson Road Union, Illinois 60180

Re:

Central Wire, Minor Spill in Drum

Accumulation Building Letter

Techalloy Company,

EPA ID # ILD 005 178 975

Administrative Order on Consent (AOC)

Docket No. R8H-5-99-008

Dear Mr. Ruopp,

This letter is in reference to John Thorsen, P.E. Autumnwood ESH Consultants letter to the United States Environmental Protection Agency (EPA) dated June 24, 2011. Mr. Thorsen letters details of the cleanup of a spill in the drum accumulation building. EPA has a question on the fact of the spill. Is this statement correct? "Central Wire personnel are not sure when the spill occurred except it most likely occurred between the last shipment of spent BG-5 on April 6, 2010 and the day it was observed - June 9, 2010." EPA observed the spill on June 9, 2011. Provide a copy of the disposal manifest documenting disposal of the spill material.

A response to this letter is required within 30 days of receipt of this letter. EPA looks forward to a further response to its June 16, 2011, letter on the cap maintenance and monitoring well repairs. Should you have any questions, regarding this letter, need any additional information, or wish to discuss this matter further, please contact me at (312) 353-1243 or contact me by e-mail to nordine.john@epa.gov.

Sincerely,

John Nordine, CPG, LPG

Project Manager

RCRA Corrective Action

Remediation and Reuse Branch

Land and Chemical Division

U.S. EPA, Region 5

Cc: Karen Peaceman, U.S. EPA

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or PO Box No. 6509 Olson Road					
	Union, Illlinois 60180				

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6509 Olson Road Union, Illlinois 60180	3. Service Type Certified Mail Registered Registered Insured Mail C.O.D.
	4. Restricted Delivery? (Extra Fee)
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REGION 5 77 WEST JACKSON BOULEVARD CHICAGO, IL 60604-3590

REPLY TO THE APPENION OF:

Via Certified Mail No. 7009 1680 0000 7671 0237 and Electronic copy

June 16, 2011

Mr. Gerald Ruopp Techalloy Company, Inc 6509 Olson Road Union, Illinois 60180

Re: Co

Central Wire, Site Visit June 9, 2011

Techalloy Company,

EPA ID # ILD 005 178 975

Administrative Order on Consent (AOC)

Docket No. R8H-5-99-008

Dear Mr. Ruopp,

This letter is in reference to the United States Environmental Protection Agency (U.S. EPA) site visit on June 9, 2011. I met with Gerald Ruopp, General Manager for Central Wire and John Thorsen, P.E. Autumnwood ESH Consultants. The meeting covered the upcoming submission of the stand-by trust document and field documentation of groundwater plume stability or migration off-site, general site history, and groundwater monitoring sampling activities.

After the meeting, Mr. Thorsen gave me a tour of the manufacturing facility including the hazardous waste storage area and RCRA Cap area. Mr. Thorsen and I observed in the hazardous waste storage area a blue 55-gallon drum BG – Brightener that had a black liquid approximately 10 to 30 ounces, which had puddled at the base of the drum. Mr. Thorsen assured me that the spill would be cleaned up. On June 14, 2011, I contacted Mr. Thorsen by phone about the spill cleanup. Mr. Thorsen stated that he and the Maintenance Manager applied oil dry over the spill area in the afternoon of June 6, 2011 and again on June 7, 2011. Mr. Thorsen will send a letter to U.S. EPA with the full details of the spill cleanup.

During the June 9 site visit, Mr. Thorsen and I also toured the RCRA Cap area. Mr. Thorsen and I observed that the RCRA Cap had cracks in the asphalt ranging in size from ¼ to ½ inch in size and the length of the cracks varied from a few feet to 20 feet or more. The maintenance and repair of the RCRA Cap is required under AOC Corrective Measures Investigation signed on September 30, 1999, Docket No. R8H-5-99-088, Section VIII (Work to be Performed), Paragraph F. (Soil Stabilization), subparagraph 3. If the RCRA Cap is not repaired U.S. EPA may seek stipulated penalties under Section XV. Delay in Performance/Stipulated Penalties A. 4.

The penalties are \$750 per day for the first seven days of such violation, \$1,500 per day for the eighth through twenty-first day of such violation, and \$2,500 per day for each day of such violation thereafter.

We continued the site visit by observing the groundwater monitoring sampling on- and off-site that was conducted by a subcontractor of Autumnwood ESH Consultants. The technicians name was Brian McQueen. Mr. Thorsen and I observed that MW-6 outer well casings lid hinge was damaged and missing. The integrity of the monitoring wells is required to prevent vandalism of the monitoring wells and to protect the groundwater from foreign substance being introduced. The repair of all damaged monitoring wells is required and all monitoring wells are required to be locked when not in use.

A response to this letter is required within 30 days of receipt of this letter. Should you have any questions, regarding this letter, need any additional information, or wish to discuss this matter further, please contact me at (312) 353-1243 or contact me by e-mail to nordine.john@epa.gov.

Sincerely,

John Nordine, CPG, LPG

Project Manager

RCRA Corrective Action

Enforcement and Compliance Branch

WPTD

U.S. EPA, Region 5

Cc: Karen Peaceman, U.S. EPA

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Mr. Gerald Ruopp Techalloy Company, Inc 6509 Olson Road Union, Illlinois 60180	3. Service Type Certified Mail
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PS Form 3811, March 2001 Domestic Re	turn Receipt 102595-01-M-1424



REGION 5 77 WEST JACKSON BOULEVARD CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF: .

LU-9J

Via Certified Mail No. 7009 1680 0000 7671 0336 and Electronic copy

November 1, 2011

Mr. Gerald Ruopp Techalloy Company, Inc 6509 Olson Road Union, Illinois 60180

Re: Central Wire, Site Visit October 24, 2011

Techalloy Company,

EPA ID # ILD 005 178 975

Administrative Order on Consent (AOC)

Docket No. R8H-5-99-008

Dear Mr. Ruopp,

This letter is in reference to the United States Environmental Protection Agency (EPA) site visit on October 24, 2011. EPA representative John Nordine met with John Thorsen, P.E. Autumnwood ESH Consultants. EPA was there to observer field groundwater plume stability or migration off-site work, groundwater monitoring sampling activities, and tour of the repaired RCRA Cap area.

Central Wire completed the repairs to the asphalt cap in July of 2011. Mr. Thorsen and I observed that the RCRA Cap had cracks in the asphalt ranging in size from ¼ to ½ inch in size and the length of the cracks from a few feet to several feet in the repaired area and the rest of the cap area had not been repaired. The maintenance and repair of the RCRA Cap is required under AOC Corrective Measures Investigation signed on September 30, 1999 Docket No. R8H-5-99-088, Section VIII Work to be Performed F. Soil Stabilization 3 Post Closure Care. If the RCRA Cap is not repaired U.S. EPA may seek stipulated penalties under Section XV. Delay in Performance/Stipulated Penalties A. 4. The penalties are \$750 per day for the first seven days of such violation, \$1,500 per day for the eighth through twenty-first day of such violation, and \$2,500 per day for each day of such violation thereafter.

A response to this letter with the details of a plan to repair the asphalt cap and time table for repairs is required within 30 days of receipt of this letter. Should you have any questions, regarding this letter, need any additional information, or wish to discuss this matter further, please contact me at (312) 353-1243 or contact me by e-mail to nordine.john@epa.gov.

Sincerely,

John Nordine, CPG, LPG

Project Manager

RCRA Corrective Action

Enforcement and Compliance Branch

WPTD

U.S. EPA, Region 5

Cc: Karen Peaceman, U.S. EPA

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 5 77 WEST JACKSON BOULEVARD CHICAGO, IL 60604-3590

FERLY TO THE AFTENTION OF

October 11, 2011

Via UPS overnight mail

Bradley Daily, C.A.
Controller, U.S. Operations
Central Wire Industries Ltd.
I North Street
Perth, Ontario
CANADA
K7H 2S2

Re: Trust Agreement between Techalloy Company Inc. and the Bank of New York

Dear Mr. Daily,

As we discussed by telephone this afternoon, please find the original Trust Agreement you sent to U.S. EPA in September 2011. You will correct the deficiencies as identified in my September 27, 2011 email to you and send the corrected original Trust Agreement to the Regional Administrator as instructed. Thank you for your continued cooperation in this matter.

Very truly yours,

Karen L. Peaceman

Associate Regional Counsel

Enclosure

cc: John Nordine, RCRA



REGION 5 77 WEST JACKSON BOULEVARD CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

LU-9J

Via Certified Mail No. 7009 1680 0000 7671 0305 and Electronic copy

September 27, 2011

Mr. Gerald Ruopp Techalloy Company, Inc 6509 Olson Road Union, Illinois 60180

Re:

Central Wire, RCRA CMI Field

Investigation Work Plan Response

Techalloy Company,

EPA ID # ILD 005 178 975

Administrative Order on Consent (AOC)

Docket No. R8H-5-99-008

Dear Mr. Ruopp,

This letter is in reference to John Thorsen, P.E. Autumnwood ESH Consultants response to the United States Environmental Protection Agency (EPA) comment letter on RCRA CMI Field Investigation Work Plan dated August 2011 and e-mail of September 23, 2011. EPA's comments are:

- 1. Most of Section 1 is missing. Add the missing section.
- 2. Page 3, after using the alconox and water solution, the equipment shall be triple rinsed with distilled water.
- Page 3, residential well sampling EPA disagrees with the statement "dissolved oxygen does not have little or no meaning"; Central Wire will continue to collect dissolved oxygen in the residential wells.
- 4. The new plume map will be made from the sampling results collected from the study and compare it to last year's plume map and reported in the next monthly report.

EPA approves the RCRA CMI Field Investigation Work Plan with the above comments. A response to this letter is required within 30 days of receipt of this letter. Please provide two (2) weeks' notice prior to the start of the field work. Should you have any questions, regarding this

letter, need any additional information, or wish to discuss this matter further, please contact me at (312) 353-1243 or contact me by e-mail to nordine.john@epa.gov.

Sincerely,

John Nordine, CPG, LPG

Project Manager

RCRA Corrective Action

Remediation and Reuse Branch

Land and Chemical Division

U.S. EPA, Region 5

Cc: Karen Peaceman, U.S. EPA



REGION 5 77 WEST JACKSON BOULEVARD CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

LU-9J

Via Certified Mail No. 7009 1680 0000 7671 0299 and Electronic copy

September 9, 2011

Mr. Gerald Ruopp Techalloy Company, Inc 6509 Olson Road Union, Illinois 60180

Re: Central Wire, RCRA CMI Field Investigation

Work Plan

Techalloy Company, EPA ID # ILD 005 178 975

Administrative Order on Consent (AOC)

Docket No. R8H-5-99-008

Dear Mr. Ruopp,

This letter is in reference to John Thorsen, P.E. Autumnwood ESH Consultants letter to the United States Environmental Protection Agency (EPA) 2011 RCRA CMI Field Investigation Work Plan dated August 2011. EPA's comments are:

- There seem to be some deviations from how samples were collected previously, particularly for
 the residential wells, but potentially also for the Geoprobe locations. Add to the text that states
 sample collection from all types of wells (residential, monitoring, and geoprobe) will be
 performed in a manner that is identical to the EPA-approved sampling plan. State what type of
 pumps will be used for the low flow groundwater sampling.
- 2. Provide details on equipment decontamination.
- 3. There is some ambiguity in the work plan about whether the previously-sampled residential wells that are <u>not</u> located along Route 176 will be sampled. There also is some ambiguity about when residential wells along Route 176 that aren't down gradient of the plume will be sampled. The sentinel monitoring wells and <u>all</u> the previously sampled residential wells are sampled more or less at the same time the geoprobe wells are sampled. CMI should list which wells will be sampled and show the wells locations on a map. Groundwater quality (field) data for residential well sampling is required.
- 4. Sample all three depths at the location of GP-3, which was at the heart of the plume in the past. This will allow Central Wire to track the plume strength through time.
- 5. Figure 1; show the location of ALL the GP sampling points. Change the title of Figure 1 to describe what it is intended to show. Add the location where the contamination plume was based on last year's data. The map in the work plan gives an incomplete depiction of conditions. Based

on the information shown, EPA does not have any idea if the plume isn't located north/northwest of GP-20. Adding a GP location to the north of GP-20 to confirm clean water in this direction should be considered. Alternatively, a more comprehensive depiction of where the plume is and isn't might render this extra location superfluous--but it might not as well.

6. Provide a new plume map from the sampling results collected from the study and compare it to last year's plume map.

A response to this letter is required within 30 days of receipt of this letter. Should you have any questions, regarding this letter, need any additional information, or wish to discuss this matter further, please contact me at (312) 353-1243 or contact me by e-mail to nordine.john@epa.gov.

Sincerely,

John Nordine, CPG, LPG

Project Manager

RCRA Corrective Action

Remediation and Reuse Branch

Land and Chemical Division

U.S. EPA, Region 5

Cc: Karen Peaceman, U.S. EPA

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77 West Jackson Blvd
Chicago, IL 60604
ATTN: John Nordine LU-9J

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 5 77 WEST JACKSON BOULEVARD

77 WEST JACKSON BOULEVARD CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

LU-9J

CERTIFIED MAIL #7001 0320 0006 1468 2608, RETURN RECEIPT REQUESTED, and ELECTRONIC COPY

8 February 2011

Mr. Gerald Ruopp Techalloy Company, Inc 6509 Olson Road Union, Illinois 60180

Re:

Central Wire Financial Assurance 2010 and 2011, Techalloy Company,

EPA ID # ILD 005 178 975

RCRA 3008(h) Administrative Order on Consent dated October 1999

Docket number # R8H-5-99-008

Dear Mr. Ruopp,

This letter is in reference to financial assurance requirements for your facility. The United States Environmental Protection Agency (U.S. EPA) has reviewed the Letter of Credit dated February 22, 2010, and has the following comments;

The Letter of Credit has sufficient funds to cover the expected site costs. In addition U.S. EPA requires Central Wire (Techalloy) to comply with the financial assurance guidance in Code of Federal Regulations (CFR) 246.146 Use of a mechanism for financial assurance of both closure and post-closure care and CFR 264.151 Wording of the instruments.

Please provide the information requested above by March 8, 2011. If you have any questions regarding this letter, please contact me at 312-353-1243, write, or email to nordine.john@epa.gov.

Sincerely,

John Nordine Project Manager

RCRA Corrective Action

Enforcement and Compliance Branch

WPTD

USEPA, Region 5

Cc: Jacqueline Miller, USEPA



Techalloy

Bob Kay to: John Nordine

05/04/2010 01:04 PM

From:

Bob Kay/R5/USEPA/US

To:

John Nordine/R5/USEPA/US@EPA

I called Jack Thorsen and got his voice mail. I expressed our desire for a 15 to 20 minute sampling frequency for the water levels and noted that we didn't expect a data point by data point analysis of trends, that plotting the water levels on a graph would be fine and analyzing the graph for trends in water level that could be tied to pumping on/off would be sufficient.

i also expressed that it was OK by us if they did a pump test on the middle well in the cluster if it responded too quickly to a slug test. i also noted that there are means of analyzing slug tests in quickly responding aquifers if you get data quickly enough and would be happy to take a look at what they have collected.

finally, i stated that i'd like to come out when they do the pumping test to observe and to try and look at sites for the "north of the Kishwaukee" sampling.

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(Domestic Mail Only; No Insurance Coverage Provided) 8030 Nording Postage 0192 Certified Fee Return Receipt Fee (Endorsement Required) 9000 Restricted Delivery Fee (Endorsement Required) Mr. Gerald Ruopp Total Postage 8 03E0 Techalloy Company, Inc Sent To 6509 Olson Road Street, Apt. No.; or PO Box No. Union, Illlinois 60180 7001 City, State, ZIP+4

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 5 77 WEST JACKSON BOULEVARD CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

LU-9J

Via Certified Mail No. 7001 0320 0006 0192 8030 and Electronic copy

22 April 2010

Mr. Gerald Ruopp Techalloy Company, Inc 6509 Olson Road Union, Illinois 60180

Re: Central Wire, March 2010 Techalloy

Monthly Progress Report Techalloy Company, EPA ID # ILD 005 178 975

Dear Mr. Ruopp,

This letter is in reference to Central Wire's March 2010 Techalloy Monthly Progress Report (submitted on behalf of Techalloy Company, Inc (Techalloy) by Autumnwood ESH Consultants). The United States Environmental Protection Agency (U.S. EPA) has reviewed the March Monthly Progress Report dated April 9, 2010. Below are the U.S. EPA comments:

- 1. For the slug tests provide well names. Techalloy will provide detailed descriptions for each slug test.
- 2. One of the slug tests appears to be the deep well of the three wells along route 176. Is this correct? Where are the slug tests on the shallow wells? The shallow wells are more representative of the aquifer and should be tested. The deep well is in the till, which is not representative of aquifer conditions.
- 3. Computation Sheet--a 6 ft slug with a diameter of one inch will not induce a yo(prelim) of 6 feet in a 2 inch well. As calculated later it should be 1.5 ft.
- 4. Based on the well log U.S. EPA has (and as well) the deep well is open to till, which is something like 15 feet thick here--at least relative to the well bottom. The aquifer thickness for this well is reported as 80 feet, which doesn't seem to be correct. The shallow wells in the drift also don't have an aquifer thickness of 80 feet. Re-assess the value for aquifer thickness.
- 5. Please verify that the borehole annuls is 4 inches. U.S. EPA believes the inside diameter of the augers is four inches and with the auger flights is eight inches, which would make the borehole annulus eight inches.

- 6. Water level logging mentioned in Autumnwood's letter. Provide the name or number of the well at is being monitored for water level logging. Presumably the logging was done in the intermediate well. Text suggests it could be in the deep well, which will not give useful data.
- 7. Monitoring water levels in this well four (4) times a day for April is not acceptable, see U.S. EPA's September 3, 2009 letter for frequency of monitoring. This frequency shall be used year round and shall be implemented as soon as possible. When the water-level data is down loaded every month Central Wire people need to measure the water level in the well to verify that the transducer data is accurate.

A response is required thirty days from the receipt of this letter. Should you have any questions, regarding this letter, need any additional information, or wish to discuss this matter further, please contact me at (312) 353-1243 or contact me by letter or e-mail at nordine.john@epa.gov.

Sincerely

John Nordine, CPG, LPG

Project Manager

RCRA Corrective Action

Enforcement and Compliance Branch

WPTD

U.S. EPA, Region 5

Cc: Karen Peaceman, U.S. EPA

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 5 77 WEST JACKSON BOULEVARD CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF: LU-9.I

Via Certified Mail No. 7001 0320 0006 0192 8085 and Electronic copy

18 March 2010

Mr. Gerald Ruopp Techalloy Company, Inc 6509 Olson Road Union, Illinois 60180

Re:

Central Wire, March 2010 Kishwaukee River Sample, and Proposal to Move

GP-21

Techalloy Company,

EPA ID # ILD 005 178 975

Dear Mr. Ruopp,

This letter is in reference to Central Wire's Proposal's to sample the Kishwaukee River and to move GP-21 (submitted on behalf of Techalloy Company, Inc (Techalloy) by Matrix Environmental, Inc). The United States Environmental Protection Agency (U.S. EPA) has reviewed the March 12, 2010, e-mail and subsequent e-mails.

A river sample in March is likely to be high water composed predominately of snow melt or run off, not base flow. It is highly unlikely this sample will provide data that will allow us to assess the impacts of groundwater recharge to the river on water quality in the river. U.S. EPA requires the sampling of the river water and Geoprobe sampling of groundwater north of the Kishwaukee be deferred until at least June when the hydraulic conditions will be more favorable to this assessment. In Central Wire's March 11, 2010, e-mail from Mr. Ruopp to U.S. EPA confirms the river sample will be postponed to at least June 2010.

Central Wire's consultant Matrix Environmental Inc. has proposed to move GP-21 from the original approved location to a location near State Route 176. U.S. EPA does not approve the request to move GP-21. The proposed location of the new GP21 is beyond the boundary of the plume as it was defined last fall/winter and is in an area where the residential sampling has consistently identified an absence of contamination. The new location is also a large distance away from GP9, the sampling point near the river where the plume was defined. Central Sods concern is the muddy field; the best approach is to delay the sampling.

Should you have any questions, regarding this letter, need any additional information, or wish to discuss this matter further, please contact me at (312) 353-1243 or contact me by e-mail to nordine.john@epa.gov.

Sincerely,

John Nordine, CPG, LPG

Project Manager

RCRA Corrective Action

Enforcement and Compliance Branch

WPTD

U.S. EPA, Region 5

Cc: Karen Peaceman, U.S. EPA Carlos Serna, Matrix Environmental, Inc

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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 5 77 WEST JACKSON BOULEVARD CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

Via Mail and Electronic copy

LU-9J

1 October 2009

Mr. Gerald Ruopp Techalloy Company, Inc 6509 Olson Road Union, Illinois 60180

Re:

Central Wire 2009 Corrective Measures

Implementation Field Investigation,

Revision September 2009 Techalloy Company, EPA ID # ILD 005 178 975

Dear Mr. Ruopp,

This letter is in reference to your Central Wire 2009 Corrective Measures Implementation Field Investigation work plan of July 2009 revised September 2009(submitted on behalf of Techalloy Company, Inc (Techalloy) by Matrix Environmental, Inc). The United States Environmental Protection Agency (U.S. EPA) has reviewed the document.

U.S. EPA finds the Central Wire 2009 Corrective Measures Implementation Field Investigation, Revision September 2009 is approved with the following conditions;

- 1. Sample collection from residential and irrigation wells will be based on a field-parameter stabilization approach, as it was during prior sampling events.
- 2. The river sample will be collected from the bottom of the water column, not the center. This location should allow for a better understanding of (if) there are groundwater impacts to the river.

Should you have any questions, regarding this letter, need any additional information or wish to discuss this matter further, please contact me at (312) 353-1243 or contact me by e-mail to nordine.john@epa.gov.

Sincerely,

John Nordine, CPG, LPG

Project Manager

RCRA Corrective Action

Enforcement and Compliance Branch

WPTD

U.S. EPA, Region 5

Cc: Karen Peaceman, U.S. EPA Carlos Serna, Matrix Environmental, Inc

Matrix Environmental's Response to U.S.EPA's Review Comments Groundwater Contaminant Plume Modeling

U.S.EPA's comments on the Bluebird modeling effort and Matrix Environmental's responses are listed below.

- 1. The groundwater model presented is poorly justified. Among the more major issues with the model are:
 - a) boundary conditions require justification., i.e., are the streams being used as specific heads or as specified flow boundaries?

Matrix response:

Streams are being used as specific head boundaries; due to lack of information on flow conditions and conductance, specific heads are based off of topographic maps and a groundwater flow diagram prepared by Integrated Consultants.

b) given the location of the plume and the principal stresses on the plume, measurements of the interactions of the stream boundaries should be given to represent these as specified heads

Matrix response:

This comment could be satisfied by obtaining flow measurements at several locations in the stream at times when the pumps are and are not being run, getting hydraulic head information from wells near the streams and testing stream sediment for hydraulic conductivity.

c) Additional head measurement points down gradient of the extraction wells should be developed before any further attempts to calibrate this model

Matrix response:

Well G-6763 was added as a down-gradient well located at 10192 Rt. 176.

d) episodic pumping of the irrigation wells should be included in the model.

Matrix response:

The modflow model was split into 2 six month stress periods. One six month period includes Central Sod high capacity irrigation well, nursery low capacity irrigation well and 2 Techalloy extraction wells. The 2nd six month period only includes Techalloy extraction wells.

2. Before modeling is done, the EPA urges the facility to produce cross-sections of the plume that trend both longitudinal and perpendicular to the general groundwater flow pattern (N-NW?). Depict all monitoring wells used to define the plume in the X-Y and, notably, Z direction. Show screening depths and include pertinent contaminant concentration data. Further, show data constraining the spatial and depth locations used to constrain the plume (i.e. < MCL values).

Matrix response:

Cross-sections were included as an attachment to the modflow report.

3 The reporting limit for vinyl chloride appears to be high. Report the detection limits for the analytical report. Generally, I would have expected to have seen vinyl chloride in some of the wells.

Matrix response:

The reporting limit in the original spreadsheet was a typo and was changed. Vinyl chloride was not detected in the wells.

3. Incorporate the down gradient irrigation wells into the cross sections and model. Give description of the irrigation wells including depth, screening, if any, diameter, pumping capacity, history and strategy of their use by the sod company

Matrix response:

Central Sod irrigation well has always been incorporated in the models, the low capacity nursery well was added. Matrix does not currently have information (the well depth, screening depth and diameter information) that would allow us to add the Central Sod irrigation wells to our cross sectional diagrams. Pumping capacity and strategy are mentioned in the report.

4 What is the potentiometric groundwater surface both with stresses (including irrigation wells), and without stresses

Matrix response:

Both potentiometric maps were added in the modflow report, one with irrigation wells and one without irrigation wells.

In regards to Section 4, the EPA believes that completing pertinent cross-sections will assist in determining the plume behavior in the vicinity of the streams to the east and north. The ground-water, surface-water interactions should, at a minimum, be assessed prior to their use as boundary conditions. The model

implies the river stage is independent of the ground-water heads. If this is so, provide evidence, especially given the production and extraction pump wells currently operating in the area.

Matrix response:

Ground-water to Surface-water interactions will require the information mentioned above. The streams are being used as specific head boundaries due to lack of information.

6 Figure 6, depicting 2 quasi-separate plume foci, will require supporting documentation, both in the form of a more accurate comprehensive ground-water flow model but, more importantly, with field evidence designed to support the modeling results.

Matrix response:

The concentration isopleths are constructed based on concentrations found in wells in place at the site, including the Highbridge Road well which is the only well between the "2 quasi separate plume foci". Additional data could be obtained from the placement of additional Geoprobe borings between the plume foci, but Techalloy believes that we have enough trend information to show that the situation shown in the model currently exists at the site. In addition, the Geoprobe sampling event conducted in February 2007 delineated the extent of the plume.

It is premature to review the Monitored Natural Attenuation (MNA) component of the report pending more accurate, calibrated and verified modeling and plume definition using capture zone analysis etc. At a minimum, however, the facility should follow established EPA guidance in advocating MNA application at the site.

Matrix response:

Matrix will go review the MNA manual to make sure we have followed MNA Guidance.

Additional comments were provided in Ms. Sundar's March 4, 2008 email to Mr. Scott Carr of Techalloy. Specifically, she stated that the latest report from Jan 2008 "failed in many aspects, an abbreviated list follows: appropriate development of a conceptual site model, proper selection and discussion of boundary conditions, discretization effort, integration of available field data into model, discussion of why a 3-dimensional finite difference model is used in a 2-dimensional manner, integration of potential Sod Farm stresses etc.

Matrix response:

With the Modflow model, the conceptual model has been improved by use of separate stress periods, the nursery irrigation well was added, and once the RFI was obtained, a more accurate hydraulic conductivity value was obtained. The only part that hasn't been addressed is the stream flow and interaction with ground-water. In addition the number of observation well hydraulic heads available for this modeling effort may be a concern. (Do we want to include this last sentence?)

Regarding proper selection and discussion of boundary conditions, this item apparently needs additional discussion. The boundaries conditions were identified and discussed in the modeling report.

Regarding discretization effort, Matrix doesn't understand what U.S.EPA is looking for regarding discretization. Matrix believes a sufficient area has been used so that wells do not affect outer limits. The modeling grid was refined around each well to obtain a more accurate flow regime around the well.

Regarding integration of available field data into the model, Matrix has used all the field information that is available to us. Hydraulic conductivity was changed when the RFI was obtained.

Regarding model use as a two dimensional model, there is insufficient data available to run a three dimensional model.

Regarding integration of potential sod farm stresses, the Central Sod well has been integrated into the model with both iterations – Bluebird and Modflow. With remodeling using Modflow two 6 month stress periods were used to separate when the wells are being pumped and not pumped.

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY	
 Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. Article Addressed to: Mr. Gerald Ruopp Techalloy Company, Inc 6509 Olson Road 	A. Received by (Please Rrint Clearly) B. Date of Delive C. Signature X. Agent Address D. Is delivery address different from item 1? Yes If YES, enter delivery address below:	
Union, Illinois 60180	3. Service Type Certified Mail	
	4. Restricted Delivery? (Extra Fee)	
2. Article Number (Transfer from service label) 7001 0320	0006 0188 1083	



REGION 5 77 WEST JACKSON BOULEVARD CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

Via Mail and Electronic copy

LU-9.I

3 September 2009

Mr. Gerald Ruopp Techalloy Company, Inc 6509 Olson Road Union, Illinois 60180

Res

Central Wire 2009 Corrective Measures
Implementation Field Investigation,
Techalloy Company,
EPA ID # ILD 005 178 975

Dear Mr. Ruopp,

This letter is in reference to your Central Wire 2009 Corrective Measures Implementation Field Investigation work plan of July 2009 (submitted on behalf of Techalloy Company, Inc (Techalloy) by Matrix Environmental, Inc). The United States Environmental Protection Agency (U.S. EPA) has reviewed the document and has the following comments;

1. page 5. Specify the sample collection procedures—either explicitly or with a reference—for groundwater from the Geoprobe locations. Use the procedures agreed to for last year's sampling. Specifying that samples will be collected using "low flow" procedures isn't sufficiently precise to cover all the details. Add a specific reference to go with the "low flow" techniques ASTM D6771 Standard Practice for Low-Flow Purging and Sampling for Wells and Devices Used for Ground-Water Quality Investigations.

Additionally, "low flow" techniques aren't really possible for the irrigation and residential supply wells. Provide sampling techniques to be used.

2. page 4. Include a paragraph or two on surface-water sampling procedures to the Field Sampling Plan and the Central Wire 2009 Corrective Measures Implementation Field Investigation document.

Specify the surface water sample(s) will be collected under base flow conditions.

Collect field parameters from the surface water sampling location.

- 3. page 4. South Branch property owner access, per the RCRA Section 3008(h) Consent Order, Section XXI, Access C, provide documentation of best efforts to obtain access. U.S. EPA may, in it's discretion, assist in obtaining access. In the event U.S. EPA obtains access, Respondent shall undertake U.S. EPA-approved work on such property.
- 4. page 4. The transducer in monitoring well at Route 176 shall record water levels every 15 minutes. This will allow better interpretation and identification of the response to pumping, particularly sine the on/off of the pumping will be fairly uncertain.
- 5. page 4. Collect a minimum of one year of monitoring with the pressure transducers account for seasonal variation. Techalloy may after one year petition to end the monitoring. Provide a review of the collected data in the monthly reports. The monitoring well that have pressure transducers should have screened intervals the same as the elevation of the screened interval(s) of the sod farm irrigation wells.
- 6. page 4. Provide specifics on the transducer monitoring--ex. Transducer psi range should be capable of detecting 0.01 ft of change in water level and be able to accommodate a range of water levels of 15 ft or so. A 10 or 15 psi transducer should be able to meet this need. Water levels should be manually checked whenever the data is dumped (monthly) and the transducer data should be checked against the manual measurements. If there is a discrepancy (say 0.05 ft or more) the transducer should be re-calibrated. These records shall be provided to U.S. EPA. Care should be taken to place the transducer at an appropriate depth so the water level doesn't drop below the transducer, or go over range. Water levels should be recorded, or at least presented, in feet above sea level to make the data more transferable. What is "loffing"? Did you mean logging the hours pumped?
- 7. page 4. What are the presumed elevations of the screens for the new monitoring wells? The water table and near the elevation of the screens of the sod farm wells, and the elevation of the nearby residential wells, or perhaps let this last one depend on the results of the VOC sampling? Some criteria should be considered.

It would be best (if possible) if the well that the pressure transducer is going in was not a flush mounted. This would avoid infiltration of snowmelt and precipitation into the well.

- 8. page 4. Conduct slug tests in the new wells.
- 9. Provide a precipitation gage and provide daily rainfall totals. The rainfalls totals can be reported in the monthly report. Or provide daily rainfall totals from a nearby NOAA gage to determine how water levels respond to precipitation (the better to understand if they're responding to pumping). This should be fairly easy to do, but there often is a lag between the time the data is collected and the time it's publicly available that might pose some issues.
- 10. page 6—U.S. EPA does not have an inherent problem with putting alternate water supply wells into the St. Peter Sandstone, but Techalloy need's to be cognizant of the fact that the groundwater MAY exceed Maximum Contaminate Level's (MCL's) for radium in the St. Peter Sandstone in this area. U.S. EPA could potentially have some issues if a water supply was

replaced containing unhealthy levels of TCE with a new water supply containing unhealthy levels of radionuclide's (even if they area naturally occurring). If the time comes when alternate water supplies are needed, a radium analysis of the water in the new well shall be required. If the radium is above MCL's a risk assessment will be required. Provide solution(s) to reduce radium levels if any are found and sampling to verify that radium levels are at acceptable levels.

11. Figures 1 and 2 provide legends for maps. What is DGW2? U.S. EPA assumes these are sampling points. Move GP 21 closer to SW1 (due east) to SW1. Resample the GP3 location at all three depths to assess concentration trends through time. Resample GP8 location, this was the leading edge of the plume last year. U.S. EPA approves the proposed locations as a starting point for the Geoprobe work as long as it is understood that if GP8 or any of the sampling points comes back with an MCL exceedence additional data points will be obtained in the downgradient direction of the plume AS PART OF THIS EFFORT until the downgradient extent of the plume if fully defined. There should be no "we'll check the data and do another work plan and wait 6 months before we get any more information".

Please provide the information requested above by September 30th, 2009. If you have any questions regarding this letter, please contact me at 312-353-1243 or email to nordine.john@epa.gov.

Sincerely,

'John Nordine, CPG, LPG

Project Manager

RCRA Corrective Action

Enforcement and Compliance Branch

WPTD

U.S. EPA, Region 5

Cc: Karen Peaceman, U.S. EPA Carlos Serna, Matrix Environmental, Inc

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY	
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Techalloy Company, Inc 6509 Olson Road Union, Illinois 60180	3. Service Type Certified Mail	
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REGION 5 77 WEST JACKSON BOULEVARD CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

LU-9J

June 16, 2009

CERTIFIED MAIL #7001 0320 0006 0188 1168 RETURN RECEIPT REQUESTED

Mr. Gerald Ruopp Techalloy Company, Inc 6509 Olson Road Union, Illinois 60180

> Re: Change in U.S. EPA Project Manager for Techalloy Company, EPA ID # ILD 005 178 975

Dear Mr. Ruopp,

This letter is to inform you that John Nordine will be replacing Bhooma Sundar as the project manager for the Techalloy Company, Inc. located in Union, Illinois. His mailing address is as follows:

U.S. Environmental Protection Agency (LU-9J) 77 West Jackson Boulevard Chicago, Illinois 60604 Fax: 312-385-5338

Email: nordine.john@epa.gov

Please contact Mr. Nordine at (312)353-1243 with any concerns regarding this facility.

Sincerely,

George Hamper

Chief, Corrective Action Section 2



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGION 5 77 WEST JACKSON BOULEVARD CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

October 4, 2007

Mr. Henry Lopes Vice President, Operations Techalloy Company, Inc 6509 Olson Road Union, Illinois 60180

Re:

Renewal and update of Financial Assurance Documents

Techalloy Company, Inc

Administrative order on Consent

Docket No. R8H-5-99-008, EPA ID# ILD 005 178 975

Dear Mr. Lopes,

The letter of credit from the Bank of Nova Scotia and the corresponding Standby Trust Agreement for the Techalloy Company Inc, Union, IL expired on February 7, 2007. Please renew the financial assurance mechanisms to continue to be in compliance with paragraph XXII concerning the financial responsibility referenced in modified consent order, dated November 29, 2005. Please contact our attorney Karen Peaceman at 312-353-5751 if you wish to change the form of financial assurance.

Please call me if you have any questions at 312-886-1660.

Sincerely,

Bhooma Sundar

Project Manager

Cc:

Karen Peaceman, ORC

George Hamper, RRB

Estelle Patterson, LCD FO



REGION 5 77 WEST JACKSON BOULEVARD CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

March 20, 2007

David Novitski Thelen Reid & Priest LLP 333 South Hope Street, Suite 2900 Los Angeles, California 90071-3048

Re: Techalloy Company facility in Union, Illinois; Financial Assurance Issues

Dear Mr. Novitski:

This letter follows up on certain issues that I mentioned in a December 6, 2005, letter to you. I would appreciate a response at your earliest convenience; my contact information is at the end of this letter.

First, my earlier letter asked that you send me one original, signed copy of the fully-executed Standby Trust Agreement that Techalloy was establishing with Wells Fargo Bank. As part of our discussions regarding the Modification to the EPA Consent Order for the RCRA corrective action that Central Wire was continuing to perform at the Techalloy facility in Union, Illinois, you had provided me with a draft of that Standby Trust Agreement. To date, however, I have not received an original, fully-executed copy of the final document.

Second, in my earlier letter I alerted you to the fact that EPA's regulations regarding a facility's maintenance of adequate financial assurance for RCRA corrective action work requires that a facility owner/operator annually reassess the cost estimate for that corrective action work:

40 CFR § 265.142(b): During the active life of the facility, the owner or operator must adjust the closure cost estimate for inflation within 60 days prior to the anniversary date of the establishment of the financial instrument(s) used to comply with § 265.143. For owners and operators using the financial test or corporate guarantee The adjustment may be made by recalculating the closure cost estimate in current dollars, or by using an inflation factor derived from the most recent Implicit Price Deflator for Gross National Product published by the U.S. Department of Commerce in its Survey of Current Business, as specified in paragraphs (b)(1) and (2) of this section. The inflation factor is the result of dividing the latest published annual Deflator by the Deflator for the previous year.

- (1) The first adjustment is made by multiplying the closure cost estimate by the inflation factor. The result is the adjusted closure cost estimate.
- (2) Subsequent adjustments are made by multiplying the latest adjusted closure cost estimate by the latest inflation factor.

In addition, subparagraph (d) of 40 CFR § 265.142 requires that once the facility owner/operator has adjusted the closure cost estimate — as required by subparagraph (b) — the latest adjusted closure cost estimate must be kept at the facility.

Given that the letter of credit established by Central Wire with the Bank of Nova Scotia had an original effective date of February 8, 2005, Central Wire should have performed adjustments of the closure cost estimate by approximately December 6, 2005, and December 6, 2006.

Please send me a copy of these two adjusted closure cost estimates, and also send copies to EPA's technical assignee for this matter, Bhooma Sundar (her address is the same as mine, except that the mail code to put in the parentheses is DE-9J).

Note that if either or both of these annual adjustments resulted in an increase of the closure cost estimate above the \$561,000 amount secured by the letter of credit, 40 CFR § 265.143(c)(7) would apply. Please refer to that provision if it applies.

Third, on a number of occasions I requested copies of relevant documents regarding Central Wire's acquisition of this Techalloy facility. They have never been sent. Can you do this now?

I look forward to receiving the requested information in the near future. Please send it to me at:

U.S. Environmental Protection Agency Region 5 77 W. Jackson Blvd. (C-14J) Chicago, IL 60604-3590

If you would like to discuss these matters further, you may telephone me at 312/886-7167 or e-mail me at miller.jacqueline@epa.gov. Thank you for your prompt attention.

Sincerely,

Jacqueline Miller

Associate Regional Counsel

B. Sundar, U.S. EPA

cc: